LisaGraph

Beta Draft

apple computer

LisaGraph

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LisaGraph

apple computer

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PREFACE

LisaGraph is used to create clear, concise graphs from even the most complex data. When you enter data in the LisaGraph table, a graph appears automatically. LisaGraph can make bar graphs, line graphs, pie charts, and scattergrams.

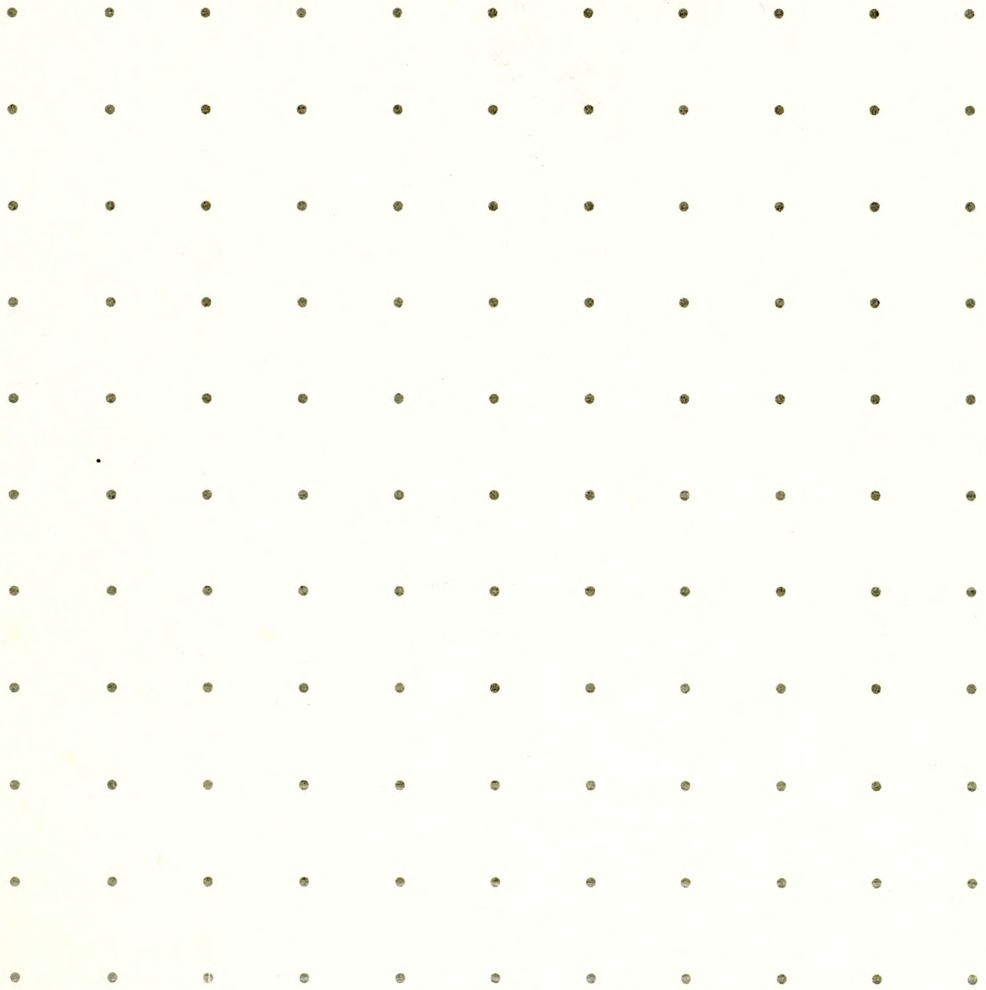
This manual contains three kinds of documentation of LisaGraph:

- Section A, Getting Started with LisaGraph, is a quick introduction to the tool. It is designed to give you the basic skills for using LisaGraph.
- Section C, LisaGraph Tutorial, is a step-by-step guide to the major features of LisaGraph. It includes suggestions on how to use LisaGraph efficiently and effectively.
- Section D, LisaGraph Reference Guide, is a complete reference section. It contains instructions for performing specific tasks, including the details of how each feature works.

The material in this manual assumes that you have used LisaGuide, which teaches you the fundamentals of using Lisa. The LisaGuide diskette came in the front pocket of the Lisa Owner's Guide, and instructions for using it appear in Section A of that manual.

Section B of this manual, Lisa Fundamentals, contains important background information about setting up and using Lisa for long-term work. Make sure you understand the concepts in Section B before going on to either the tutorial or the reference guide. Section B is the same in all Lisa tool manuals. If you have read it in another tool manual, you can skip it here. Section E, Desktop Manager Reference Guide, is also the same in all Lisa tool manuals. Refer to it when you need to know how to do filing or perform any of the other tasks outlined in Section B.

A Getting Started with LisaGraph



Section A

Getting Started with LisaGraph

GETTING STARTED WITH LISAGRAPH

With LisaGraph you can produce all kinds of graphs: bar graphs, line graphs, scattergrams, and pie charts.

LisaGraph can help you quickly and effectively compare and communicate important information, with whatever type of graph you choose.

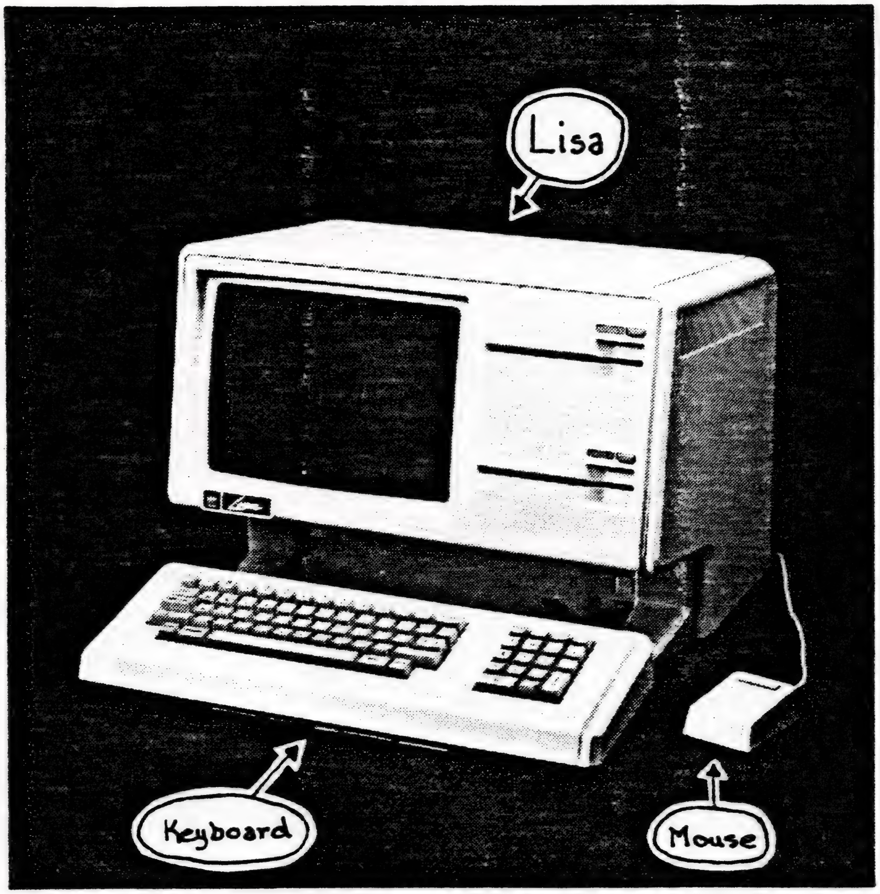
After you complete Getting Started With LisaGraph, you will be able to create, edit, file, and print quality graphs in a matter of minutes.

What You Need To Get Started

Getting Started with LisaGraph is a hands-on exercise. By going step-by-step through an easy example, you will quickly become familiar with the basic skills for using LisaGraph.

Here's what you need:

- A Lisa set up and plugged in. Make sure your keyboard and mouse are attached.
- A Profile set up and plugged in, with the LisaGraph tool on it.
- A Printer set up and plugged in if you want to print. Make sure your printer is hooked up to your Lisa and turned on. Printing is optional.
- About 30 minutes.



If you haven't yet gone through LisaGuide, in which Lisa introduces Lisa, now is a good time to do so -- it will make "Getting Started" even easier. You can find the LisaGuide diskette in the front pocket of the Owner's Guide that came with your Lisa.

If you've already gone through a "Getting Started" for another Lisa tool, you'll see many similarities in using LisaGraph -- the basic concepts for using each Lisa tool are the same.

Starting Up

What You're About To Do

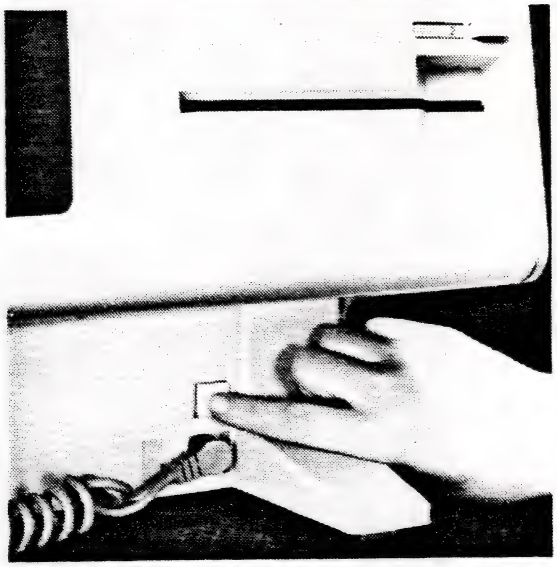
Follow the numbered steps below and on the next page to:

- Turn on and start up your Lisa.
- Learn how to brighten the screen if it has dimmed automatically.

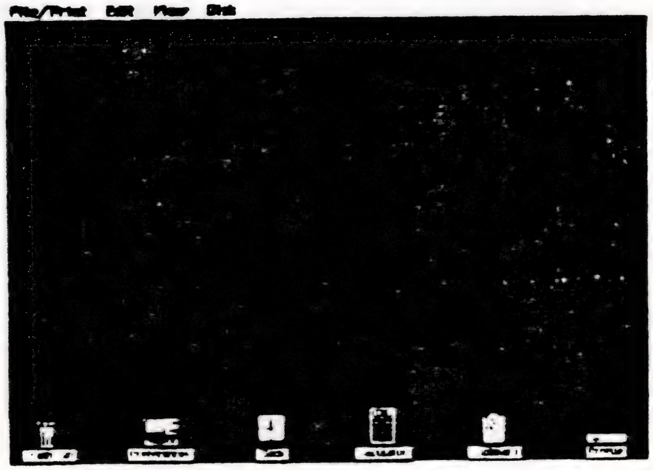
If your Lisa is already on, skip to Step 3 on the next page.

Do This	Visual Aid

1> Turn on your Lisa by pressing the on-off button, as shown.



2> After the Profile disk stops whirring (several minutes), your screen should look something like the one to the right.



(To continue, go to next page.)

Starting Up -- Continued

Do This	Visual Aid
3> If your Lisa is on for a period of time with no activity, the screen will automatically dim. If your screen is dim, move the mouse to brighten it.	

The Desktop and the Mouse

What You're About To Do

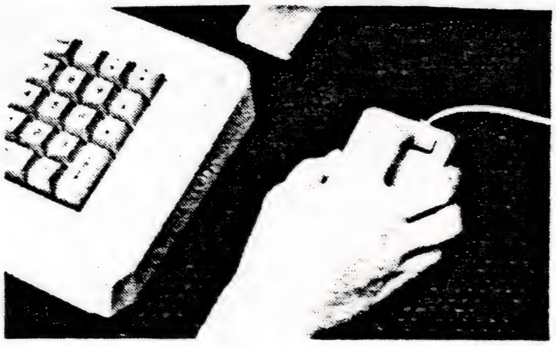
The gray area of your screen is called the "desktop". Like the desktop of an office desk, it's where you do your work.

The mouse is what you use to communicate with your Lisa -- you use it to point out what it is you want done.

To get familiar with your Lisa's "desktop" and how to use the mouse, follow the steps below.

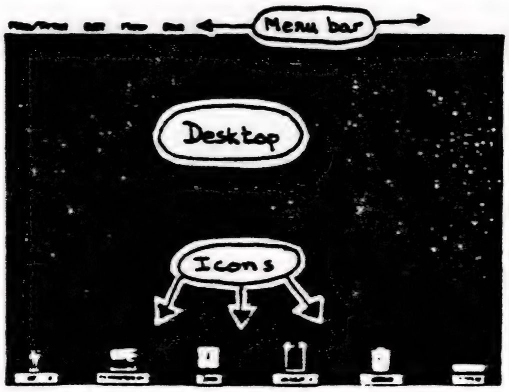
Do This — Visual Aid

1> Hold the mouse as shown. (Don't press the mouse button yet.)

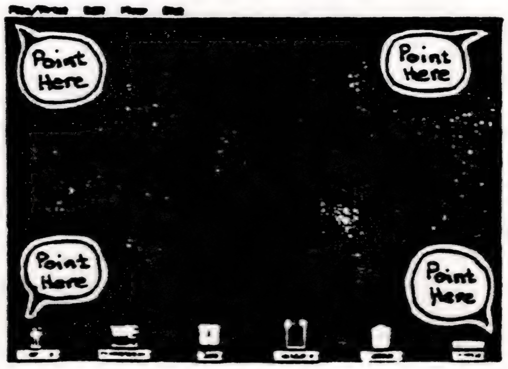


2> Slide the mouse on your desk to move the pointer around Lisa's "desktop" -- the gray part of your screen.

Notice the menu bar across the top of your screen -- it contains "menus" of different actions you can take. Along the bottom of your screen are various icons -- visual symbols that stand for different things.



3> To get oriented, move the pointer to the different spots shown to the right. (Trouble making the pointer go where you want it to go? Lift up and reposition the mouse.)



Seeing What's On a Disk

What You're About To Do

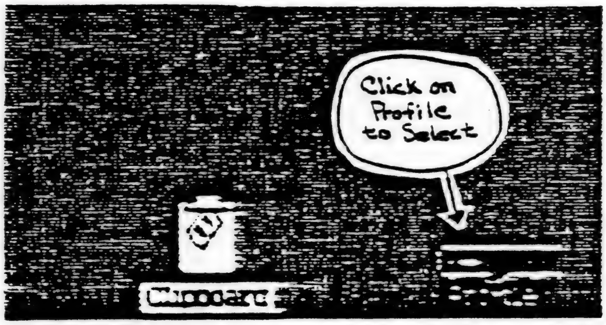
To get at the document you'll work with, you first need to open the Profile disk as described in the steps below.

The way you'll open the disk will illustrate your Lisa's most general principle:

- First you select something.
- Then you do something to what you've selected.

Do This	Visual Aid

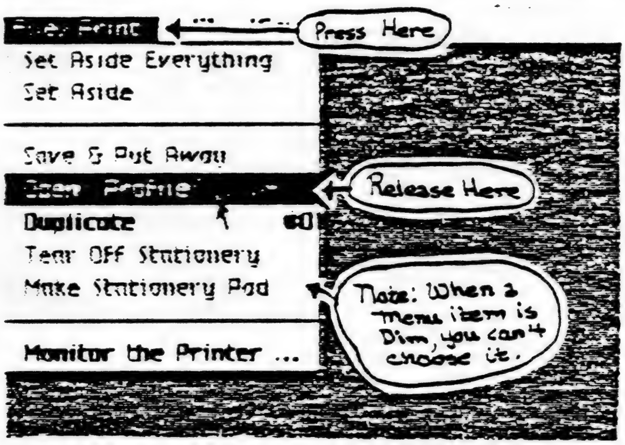
1> Select (highlight) the Profile disk icon by placing the pointer on it and clicking the mouse button, as shown. (Icon not highlighted? Try again.)



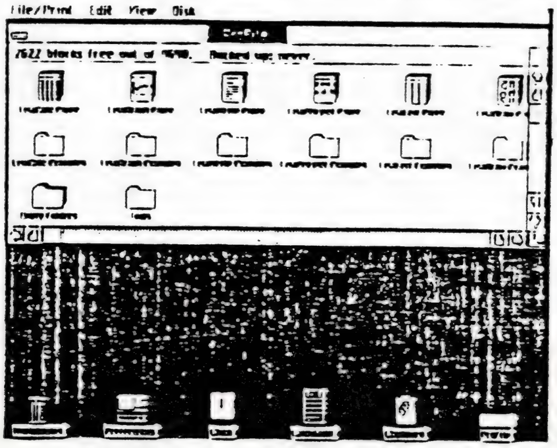
2> Open the selected disk icon by choosing Open "Profile" from the File/Print menu.

Here's How

-Press and hold with the pointer on File/Print in the menu bar.
-Move the pointer down and release on Open "Profile".



3> Notice the "window" to the Profile that zooms open on your Lisa's desktop. Your Profile is like a very large file drawer -- it's where you'll keep most of your work.



Pulling a Document

What You're About To Do

Inside the ProFile window you should see several stationery pads and folders. The LisaGraph Examples folder contains the example you'll be working on here. In the steps below, you will:

- Open the LisaGraph Examples folder.
- Tear off a sheet from the Getting Started stationery pad that's inside the folder.
- Move the new sheet, or document, to a clear spot on the folder.
- Give the new document the name Phone Sales.
- Open the document.

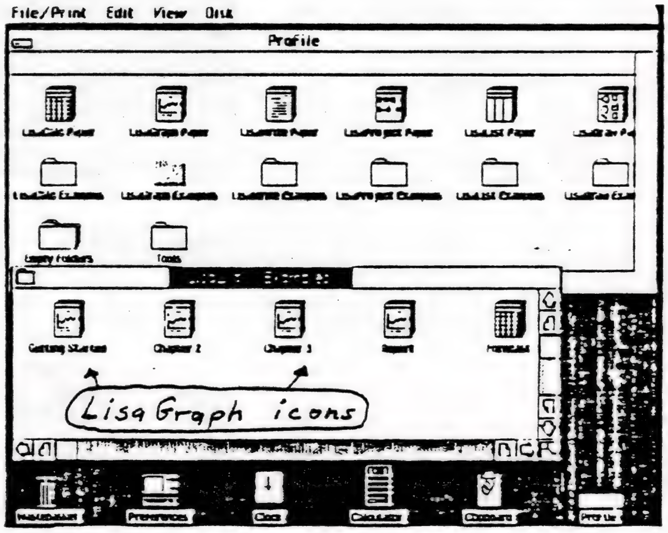
Do This

To open the LisaGraph Examples folder:

1> Select the LisaGraph Examples folder by clicking on it.

2> Choose Open "LisaGraph Examples" from the File/Print menu.

Notice the window to the LisaGraph Examples folder that zooms open, and its contents, as shown. The "graph-like" patterns on some of the icons in the folder show they are LisaGraph icons.

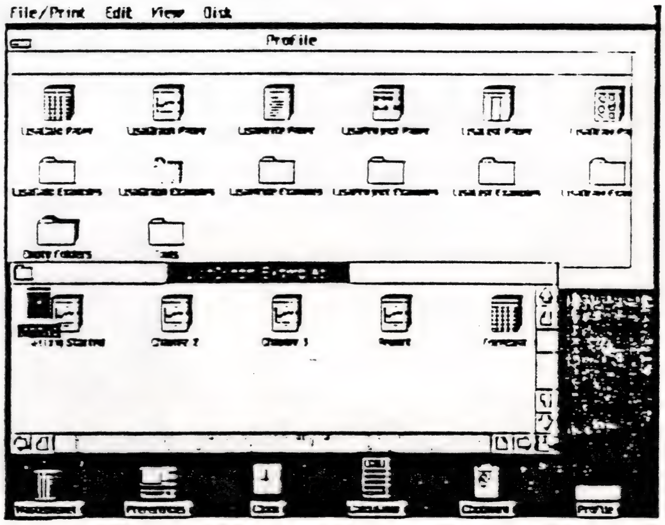


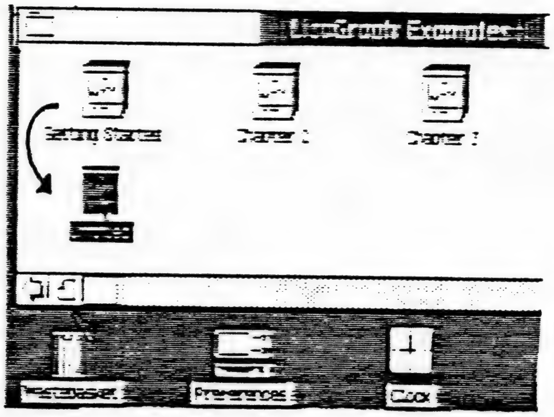
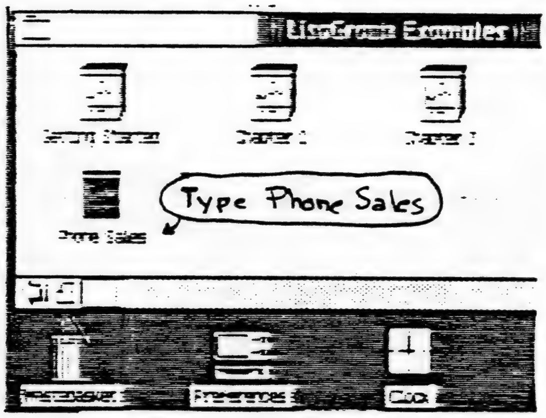
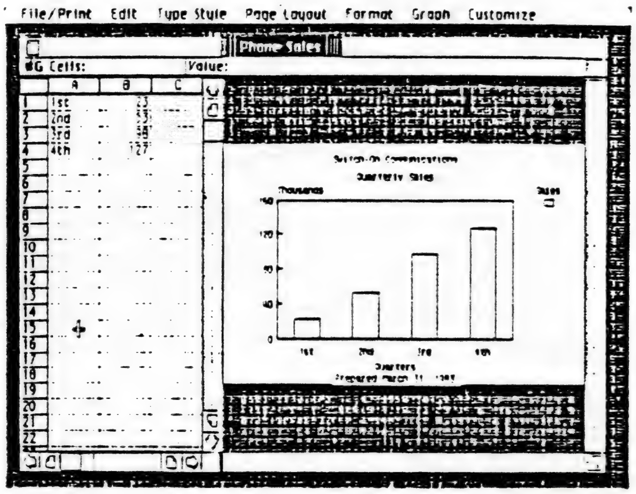
Copies of the Getting Started example are on the Getting Started stationery pad. To tear off a sheet from the pad:

1> Select the Getting Started pad icon.

2> Choose Tear Off Stationery from the File/Print menu and wait a moment until the new document appears, as shown.

(To continue, go to next page.)



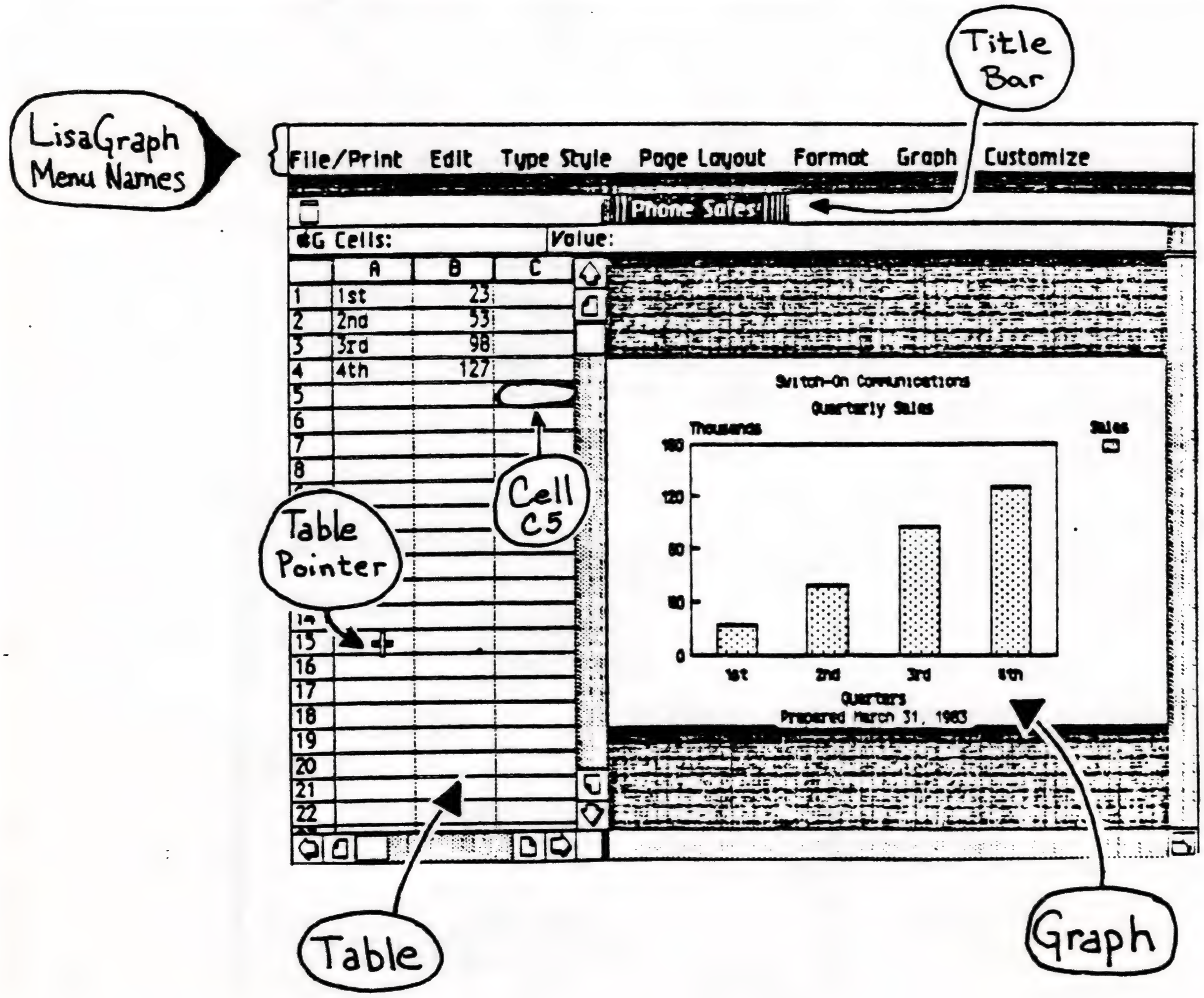
Do This	Visual Aid
To move the new icon out of the way, underneath the Getting Started pad: 1> Place the pointer on the icon. 2> Hold down the mouse button and move the icon as shown; then release the mouse button.	
To rename the new document: 1> Make sure the untitled document icon is still selected. If you've deselected the icon by clicking elsewhere on the screen, select it again by clicking on it. 2> Type the name Phone Sales. (Typing mistake? Use the [BACKSPACE] key to correct it.)	
To open the Phone Sales document: 1> Make sure the document icon is selected. 2> Choose Open "Phone Sales" from the File/Print menu. Notice how the icon zooms open into a window. Wait a few moments (the hourglass pointer means wait) until the LisaGraph tool displays the Phone Sales document, as shown.	 File/Print Edit Type Style Page Layout Format Graph Customize Phone Sales Cells: Value: A B C 1st 2nd 3rd 4th 127 Thousands Sales 0 40 80 120 1st 2nd 3rd 4th Quarters

The LisaGraph Document

The Phone Sales document is now open and active on your Lisa's desktop (the highlighted title bar shows that the document is active).

Across the menu bar are the LisaGraph menu names, indicating that your LisaGraph Tool is now available for your use. When you open a document, your Lisa automatically looks for the tool needed to work with it. For instance, to make a graph you need graph paper, and to use graph paper requires the LisaGraph Tool.

On the left side of the Phone Sales document is a table; on the right side, a graph. The figures entered into the cells of the table are plotted on the graph. Notice how the pointer changes from a table pointer (+) when it's over the table, to a text pointer (I) when it's over text in the graph.



	A	B	C
1	1st	23	
2	2nd	53	
3	3rd	98	
4	4th	127	

What You Are Going To Do

Imagine you work for a fictional company called Switch-On Communications, Inc. You want to plot next quarter's sales and profit goals on a graph with the sales and profit figures from the last four quarters. To do this, you must update and edit your current Phone Sales graph.

In the next several pages you will learn to:

(1) Examine the current data plotted as a line graph, scattergram and pie chart, and then again as a bar chart.

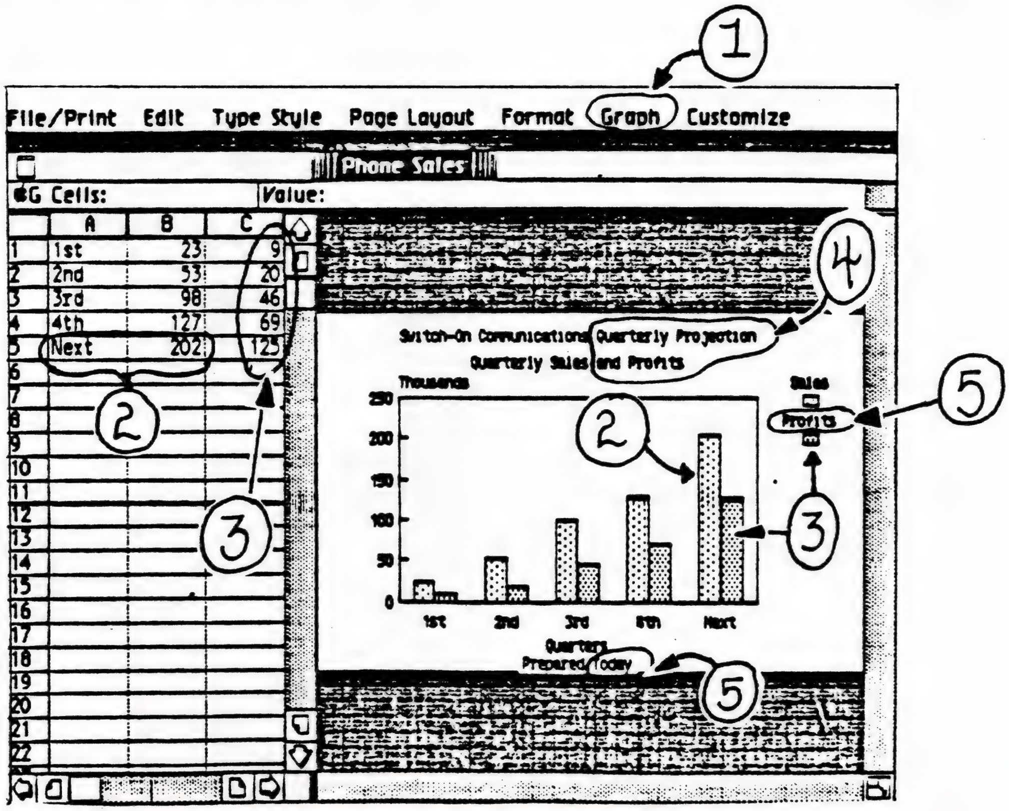
(2) Add next quarter's sales projection as a new bar on the graph.

(3) Add the profit information for each quarter as a new set of bars on the graph.

(4) Add text to the graph to update the graph's title.

(5) Replace text on the graph to change the graph's legend label and preparation date.

Your graph will end up looking like the one below. Compare it with the graph now on your screen.



	A	B	C
1	1st	23	9
2	2nd	53	20
3	3rd	98	46
4	4th	127	69
5	Next	202	125
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

Changing the Graph Type

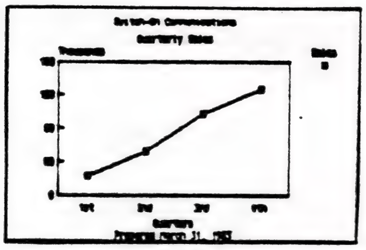
What You're About To Do:

Follow the steps below to examine the current data plotted as:

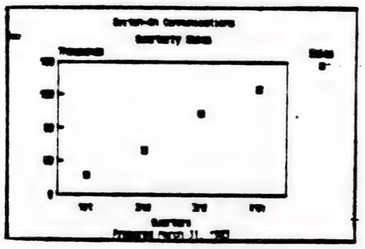
- a Line Graph;
- a Scattergram;
- a Pie Chart;
- and then again as a Bar Chart.

Do This: **Visual Aid:**

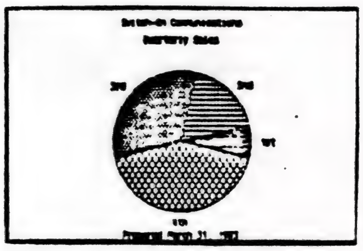
1) Choose Line from the Graph menu. (Press and hold on Graph in the menu bar; move down and release on Line).



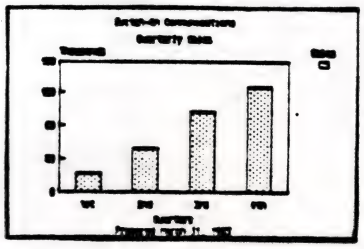
2) Choose Scatter from the Graph menu.



3) Choose Pie from the Graph menu.



4) Choose Bar from the Graph menu.



Adding a New Bar to the Graph

What You're About To Do:

You need to add next quarter's projected sales figure (202 thousand dollars) as a new bar on the graph.

Follow the steps below to:

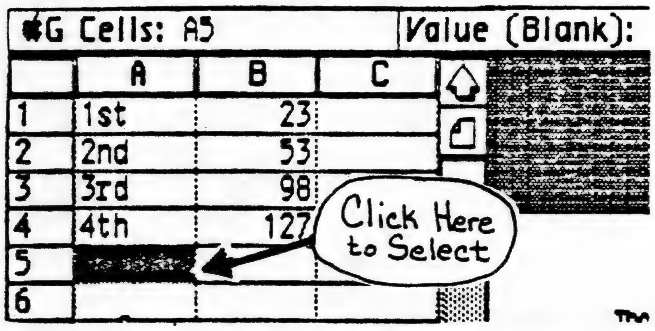
- add a new x-axis label to the graph, and
- add the projected sales figure to the graph.

Do This:

Visual Aid:

To add the new x-axis label to the graph:

1) Select cell A5 by placing the pointer in the cell and clicking the mouse button once, as shown.



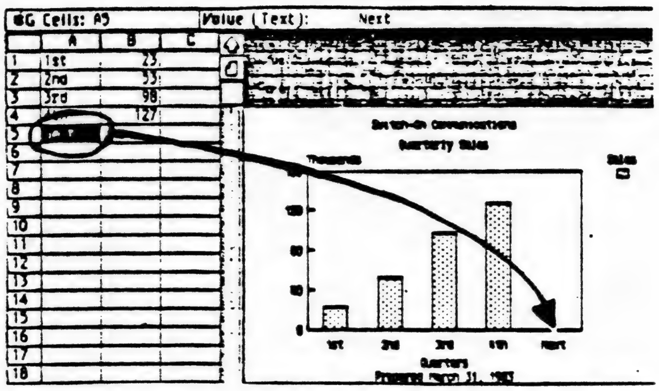
G Cells: A5 Value (Blank):

	A	B	C
1	1st	23	
2	2nd	53	
3	3rd	98	
4	4th	127	
5			
6			

Click Here to Select

2) Type the word Next and press the ENTER key. (Use the BACKSPACE key or choose Clear Entries from the Edit menu if you make a mistake.)

Notice the new label on the x-axis of the graph and the space made for a new bar.



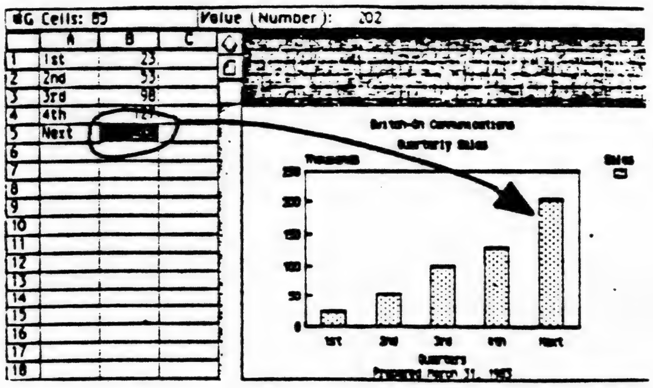
G Cells: A5 Value (Text): Next

	A	B	C
1	1st	23	
2	2nd	53	
3	3rd	98	
4		127	
5			

To add the projected sales figure to the graph:

1) Select cell B5, type 202, and press ENTER.

Notice how the sales figure for next quarter is automatically added to the graph.



G Cells: B5 Value (Number): 202

	A	B	C
1	1st	23	
2	2nd	53	
3	3rd	98	
4	4th	127	
5	Next		

Adding a New Set of Bars to the Graph

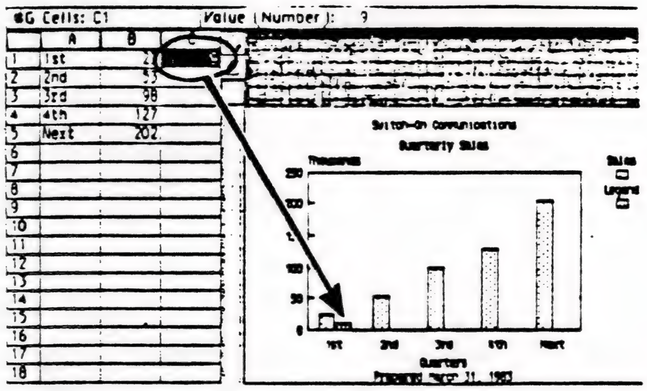
What You're About To Do:

Follow the steps below to add the profit information for each quarter as a new set of bars on the graph.

Do This: **Visual Aid:**

1) Enter the number 9 into cell C1. (Select the cell, type, and ENTER.)

Notice the second bar that is automatically graphed next to the Sales bar for the 1st quarter.

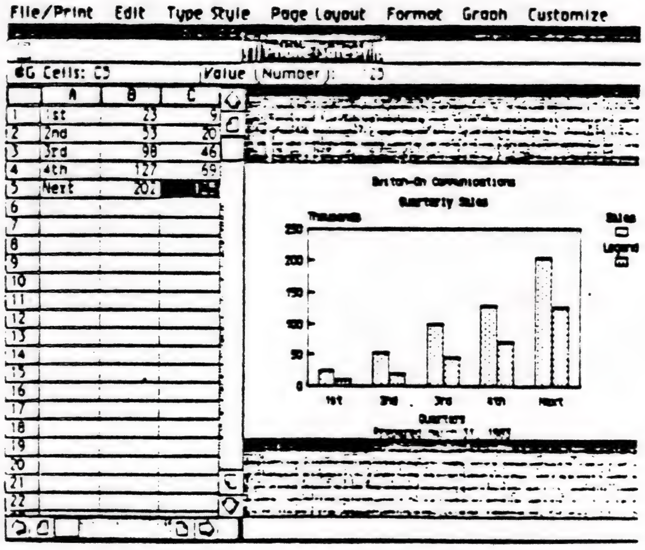


⌘G Cells: C1 Value (Number): 9

	A	B	C
1	1st	23	9
2	2nd	53	
3	3rd	98	
4	4th	127	
5	Next	202	

2) Follow the same procedure to graph the remaining profit information, as shown to the right. (Use the BACKSPACE key or choose Clear Entries from the Edit menu if you make a mistake.)

Quarter	Profits
2nd	20
3rd	46
4th	69
Next	125



⌘G Cells: C5 Value (Number): 125

	A	B	C
1	1st	23	9
2	2nd	53	20
3	3rd	98	46
4	4th	127	69
5	Next	202	125

Adding Text To The Graph

What You're About To Do:

You can add text anywhere on the graph.

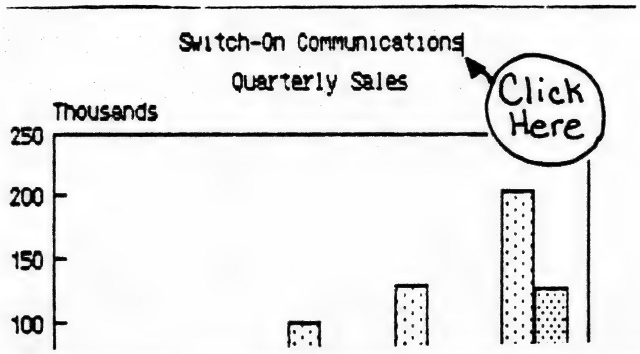
Follow the steps below to add the words underlined to the current graph title, so that it reads:

Switch-On Communications Quarterly Projection

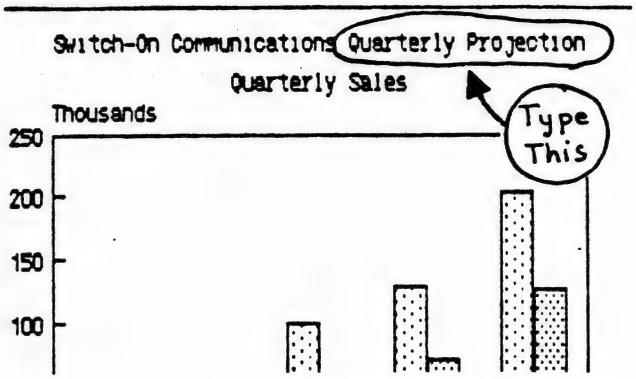
Quarterly Sales and Profits

Do This: **Visual Aid:**

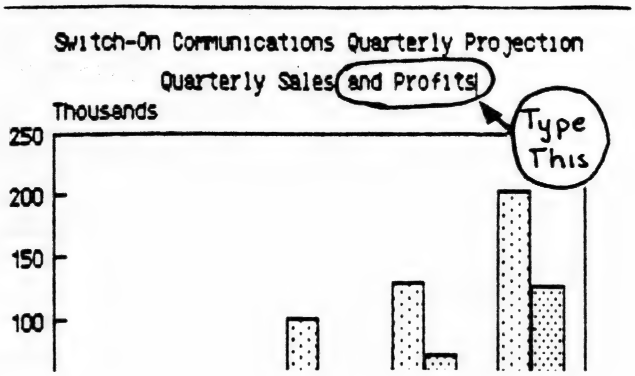
1) Use the text pointer to select an insertion point (a blinking vertical line) after the word Communications by clicking once just after the s, as shown.



2) Press the SPACEBAR and type the words Quarterly Projection. (Use the BACKSPACE key if you make a mistake.)



3) Follow the same procedure to make Quarterly Sales read Quarterly Sales and Profits, as shown.


Switch-On Communications Quarterly Projection
Quarterly Sales and Profits
Type This
Thousands
250
200
150
100

Replacing Text on the Graph

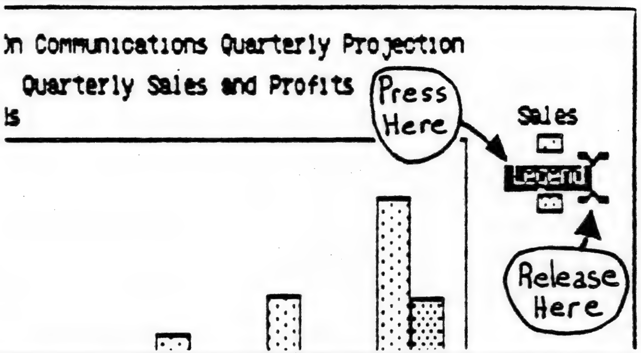
What You're About To Do:

Two more items on the graph need changing: the legend (which describes what the bars stand for) and the preparation date.

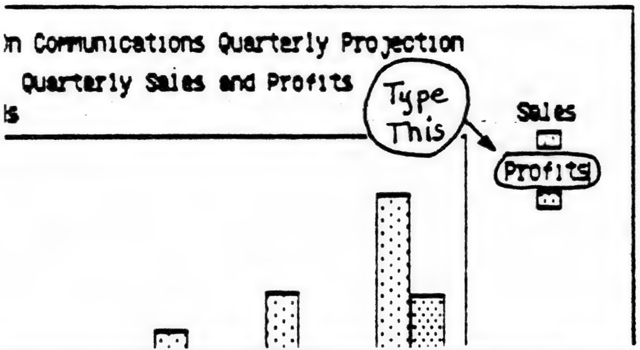
Replace the word Legend with the word Profits, and March 31, 1983 with today's date, as described in the steps below.

Do This: **Visual Aid:**

1) Select the word Legend by pressing and holding before the L, and then moving the pointer across and releasing after the d, as shown. (Just try again if you don't get it the first time.)

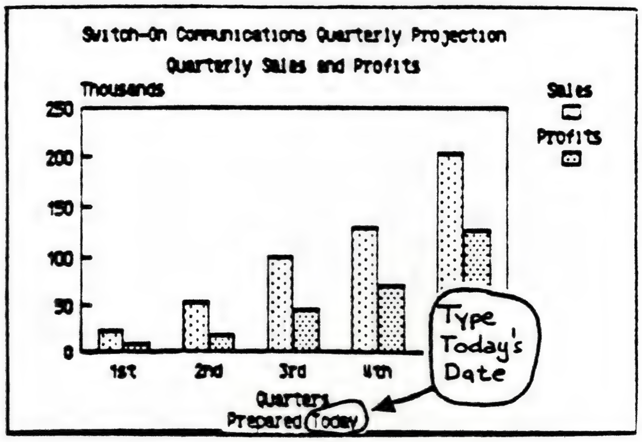

n Communications Quarterly Projection
Quarterly Sales and Profits
ls
Press Here
Sales
Legend
Release Here

2) Type Profits. (Use the BACKSPACE key if you make a mistake.)


n Communications Quarterly Projection
Quarterly Sales and Profits
ls
Type This
Sales
Profits

3) Follow the same procedure to replace March 31, 1983 with today's date.

Your graph is now complete.



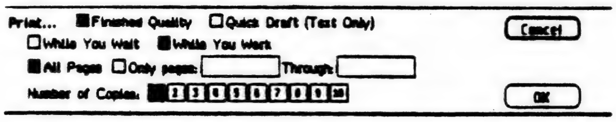
(blank)

Printing Your Document -- Optional

What You're About To Do

You can skip this section if you don't have a printer available, or if you would rather not print your document at this time.

If you would like to print a copy of your finished document, follow the steps below.

Do This	Visual Aid
1> To ensure that your work is saved on the Profile before you print, choose Save & Continue from the File/Print menu. 2> Make sure your printer is hooked up and turned on. (Look in the manual that came with your printer for information on connecting the printer and loading paper and print ribbons.)	(Shots of both printers)
3> Choose Print from the File/Print menu to bring up the Print dialog box shown to the right. (See a different message on the screen? Go to the end of the next page and read the "Trouble with printing?" section.)	 Print... ■ Finished Quality ☐ Quick Draft (Text Only) ☐ While You Wait ■ While You Work ■ All Pages ☐ Only pages: ☐ Through: ☐ Number of Copies: ■ 2 3 4 5 6 7 8 9 10

(To continue, go to next page.)

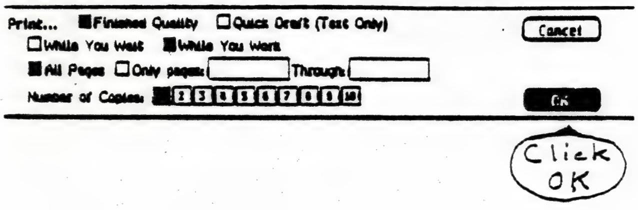
Printing Your Document -- Continued

Do This

Visual Aid

4> The current settings in the Print dialog box are fine, so click OK, as shown. (Trouble? See below.)

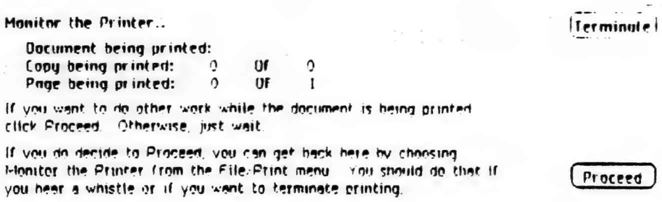
Notice that the hourglass pointer appears for a few moments (the hourglass pointer means wait) as Lisa prepares to print the document.


Print... ■ Finished Quality ☐ Quick Draft (Text Only)
☐ While You Wait ■ While You Work
■ All Pages ☐ Only pages: Through:
Number of Copies: ■ 2 3 4 5 6 7 8 9 10

Click OK

5> When your document begins printing and you see the Monitor the Printer dialog box, click Proceed, as shown. (Trouble? See "Trouble with printing?" below.)

Notice that once the hourglass pointer disappears and printing begins, you can use your Lisa to do other work.


Monitor the Printer..

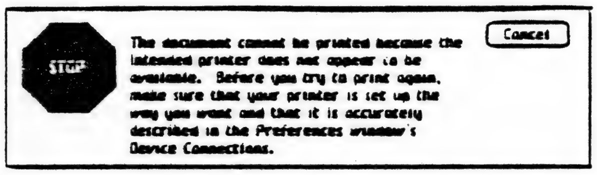
Document being printed:
Copy being printed: 0 Of 0
Page being printed: 0 Of 1

If you want to do other work while the document is being printed click Proceed. Otherwise, just wait.

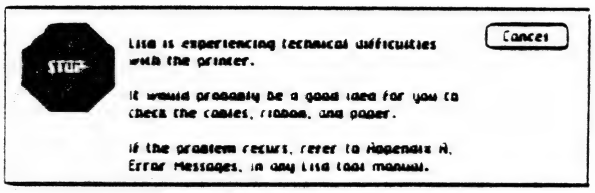
If you do decide to Proceed, you can get back here by choosing Monitor the Printer from the File/Print menu. You should do that if you hear a whistle or if you want to terminate printing.

Trouble with printing?

-> If you see the alert message to the right, refer to the Lisa Owner's Guide, Section D, Desktop Manager Reference Guide, under Set Printer Configuration.


The document cannot be printed because the intended printer does not appear to be available. Before you try to print again, make sure that your printer is set up the way you want and that it is accurately described in the Preferences window's Device Connections.

-> If you see any other alert message, follow its instructions. If needed, refer to the Lisa Owner's Guide, Section G, Troubleshooting, under Printers, or see the manual that came with your printer.


Lisa is experiencing technical difficulties with the printer.

It would probably be a good idea for you to check the cables, ribbon, and paper.

If the problem recurs, refer to Appendix A, Error Messages, in any Lisa tool manual.

-> To learn more about printing, refer to Section C, LisaWrite Reference Guide, Chapter 2, under Print.

Putting Your Document Away

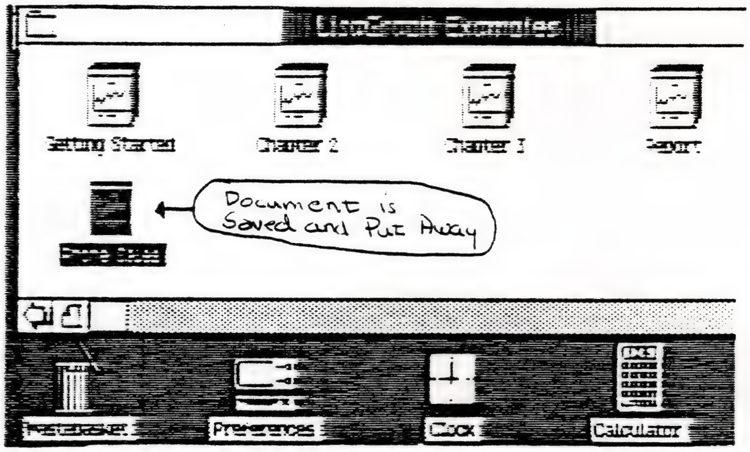
What You're About To Do

Now that you're finished working on your document, follow the steps below to put it away.

Do This | **Visual Aid**

1> Choose Save & Put Away from the File/Print menu. (Is the Save & Put Away menu item dim? Then you need to click in the document to make the window active.)

Notice how the window zooms back down to a document icon to its place in the LisaGraph Folder.

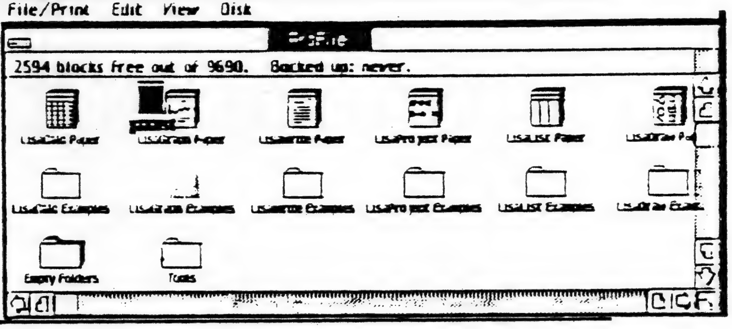
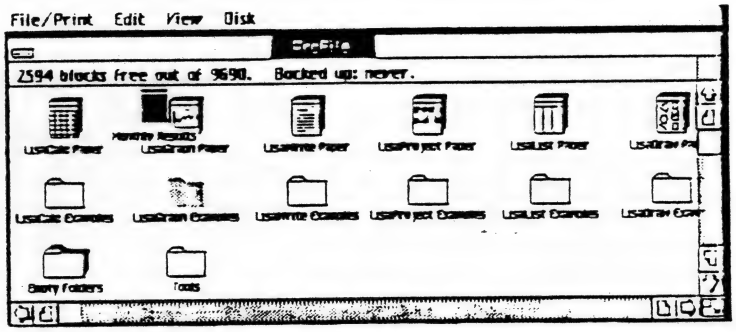
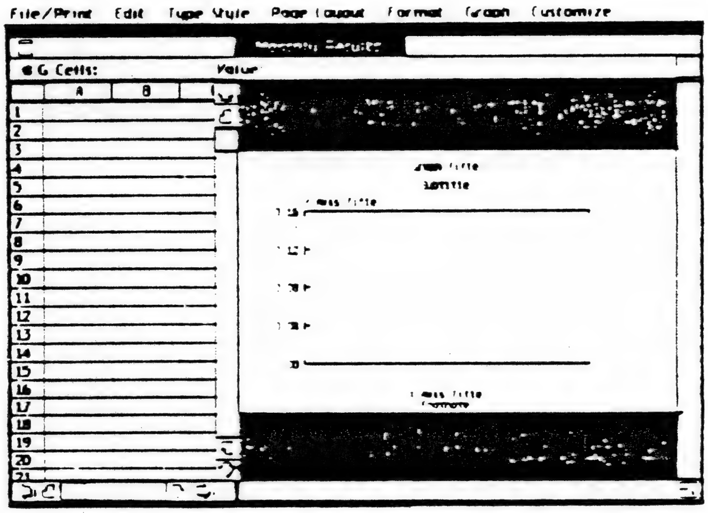


Document is Saved and Put Away

Starting From Scratch

What You're About To Do

In order to start a new graph, you need to get a piece of blank stationery, as described below. LisaGraph stationery is in a pad called LisaGraph Paper.

Do This	Visual Aid
1> Tear off a sheet from the LisaGraph Paper pad at the top of the ProFile window. (Select the pad icon; choose Tear Off Stationery from the File/Print menu.)	 File/Print Edit View Disk ProFile LisaCalc Paper LisaGraph Paper LisaWrite Paper LisaProject Paper LisaList Paper LisaDraw Pa LisaCalc Examples LisaGraph Examples LisaWrite Examples LisaProject Examples LisaList Examples LisaDraw Exam Empty Folders Tools 2594 blocks free out of 9690. Backed up: never.
2> Don't worry right now about moving the untitled document out of the way. Change the name of the untitled document to Monthly Results. (Make sure the icon is selected; then type.)	 File/Print Edit View Disk ProFile Monthly Results LisaCalc Paper LisaGraph Paper LisaWrite Paper LisaProject Paper LisaList Paper LisaDraw Pa LisaCalc Examples LisaGraph Examples LisaWrite Examples LisaProject Examples LisaList Examples LisaDraw Exam Empty Folders Tools 2594 blocks free out of 9690. Backed up: never.
3> Open the piece of LisaGraph paper you named Monthly Results like you would any document. (Choose Open "Monthly Results" from the File/Print menu.) 4> Now if you feel like making a graph. If you haven't yet, look at what's in all your menus. Experiment -- try different things. Look in the LisaGraph Reference Guide or check the index if you want specific information on something.	 File/Print Edit Type Style Page Layout Format Graph Customize Monthly Results G Cells: Value A B 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 Graph Title Subtitle Y Axis Title X Axis Title Footnote

Finishing Up

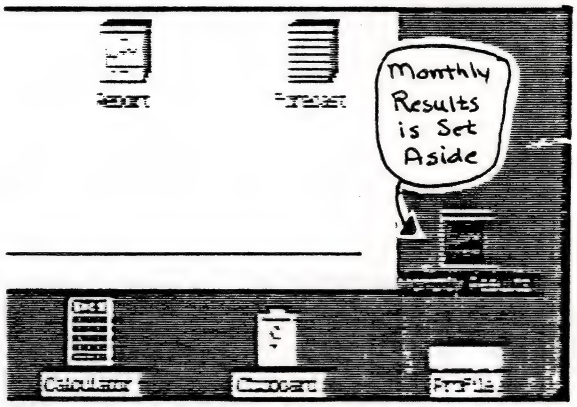
What You're About To Do

You can turn off Lisa at any time without fear of losing anything, even if you have documents open on the desktop. When you turn on Lisa again, everything will reappear on the desktop as you left it. For now let's assume you want to clear off the desktop before you quit. One way to do this is described below, and will illustrate some of the ways you can manage things on Lisa's desktop.

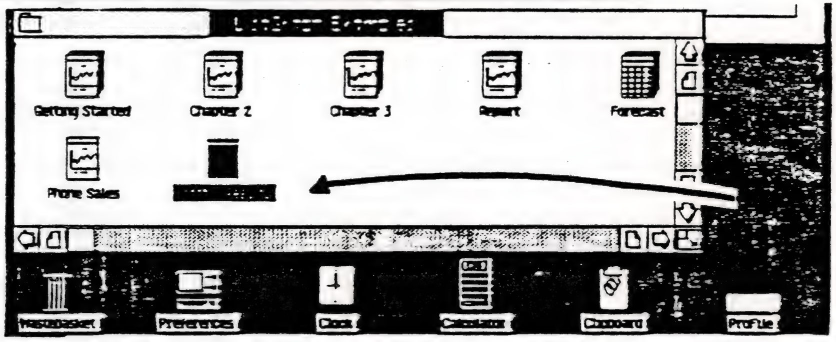
Do This | **Visual Aid**

1> Choose Set Aside "Monthly Results" from the File/Print menu and notice how Monthly Results is set aside as an icon on the desktop.

Note: When you're working with several documents at the same time, it's most convenient to keep them set aside on the desktop.

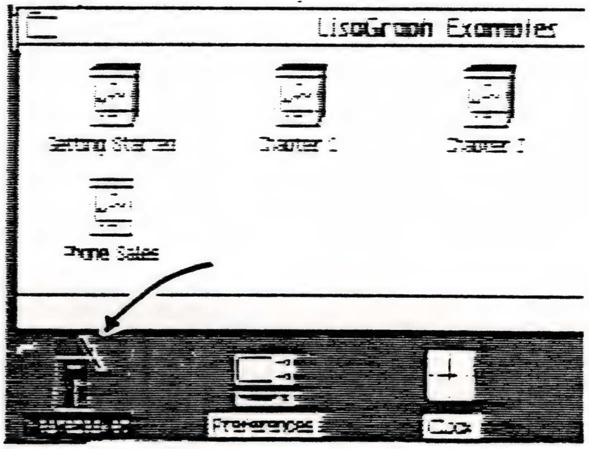


2> If you want to keep the Monthly Results document to work on later, move it to a clear area in the LisaGraph folder, as shown. (Press with the pointer on the icon, move it, and release when the icon is where you want it.)

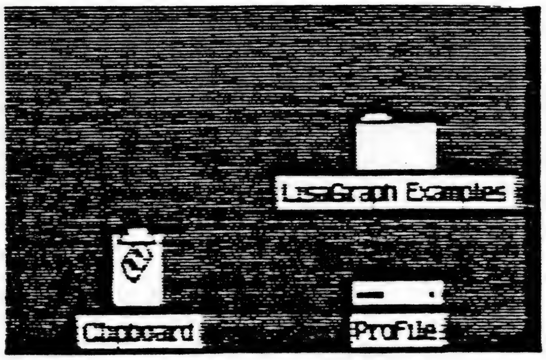
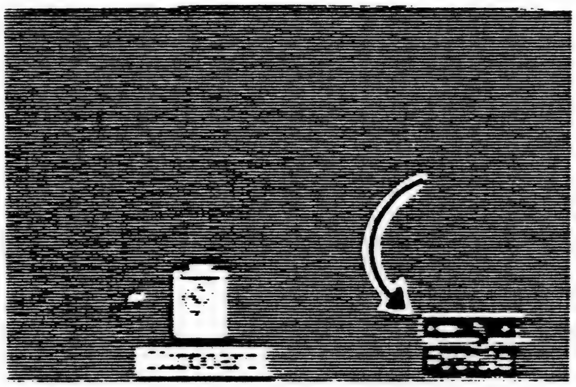
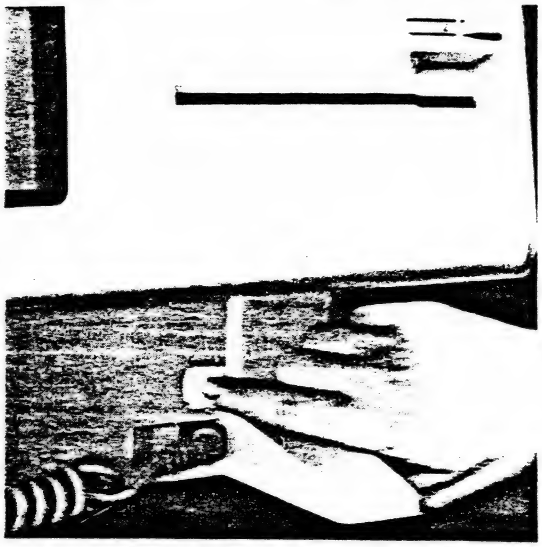


3> If you want to throw away the Monthly Results document, move it to the Trash Can icon. When the document icon is on the Trash Can and the Trash Can icon highlights, release the mouse button and wait for the document to be deposited.

Note: You can always get back the last thing you've thrown away by opening the Trash Can icon and moving the deposited document back out.



Finishing Up -- Continued

Do This	Visual Aid
4> Now set aside both the LisaGraph Folder and Profile by choosing Set Aside Everything from the File/Print menu. Notice that both the Folder and Profile icons are now set aside on the desktop.	
5> You can move the LisaGraph folder back into its place on the Profile even when the Profile window is closed. To do so, press with the pointer on the folder icon, move it on top of the Profile, and release when the Profile icon is highlighted, as shown.	
6> If you want to work on something else now, just open the Profile again. If you are through using Lisa for the time being, turn off the power by pressing the on-off button, as shown.	

Using LisaGraph

You now have the basic skills necessary for using LisaGraph to produce your own documents. Because the concepts for using each Lisa tool are the same, you also have some of the basic skills for using other Lisa tools: LisaCalc, LisaDraw, LisaList, LisaProject, and LisaWrite.

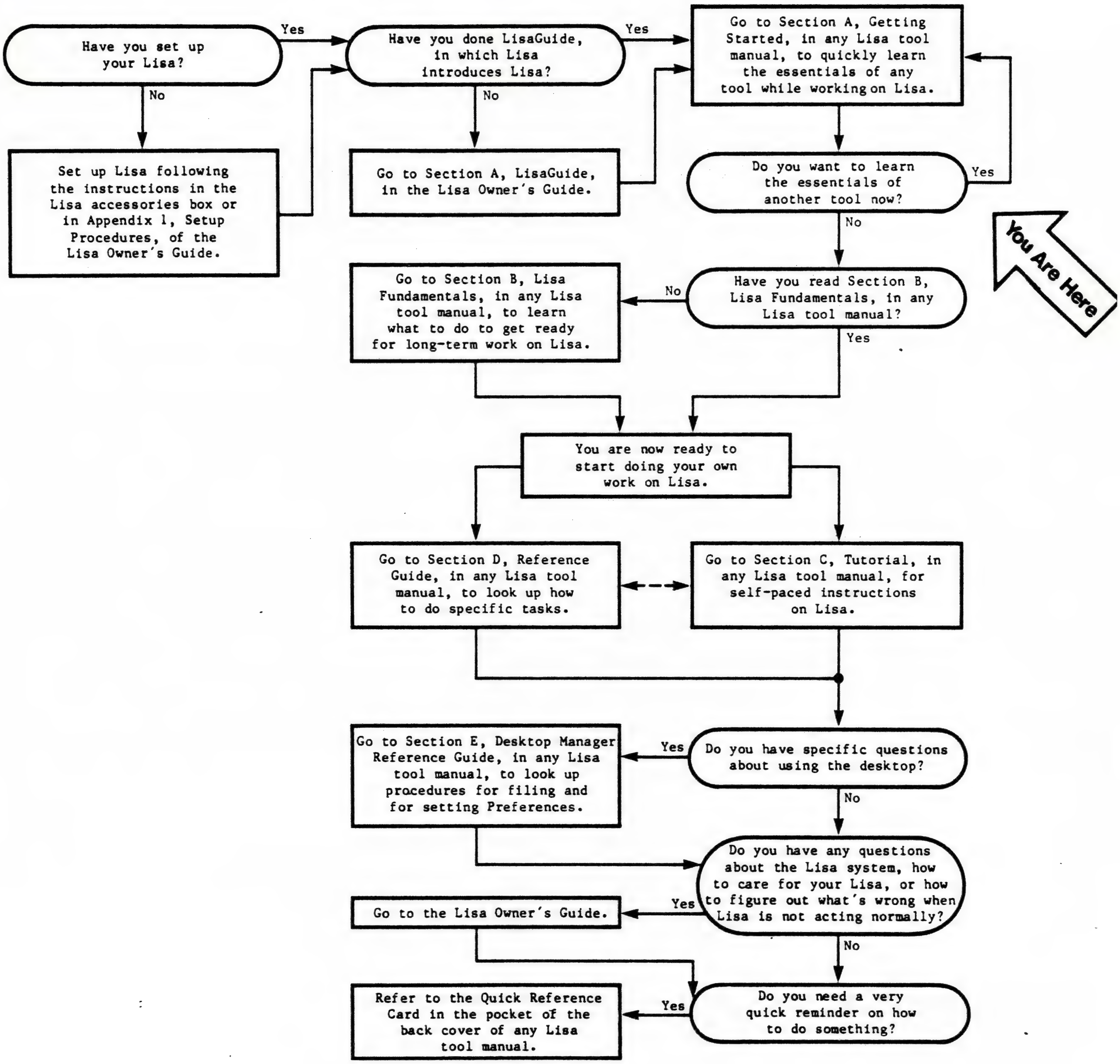
There is much more you can do with LisaGraph. You can learn about other LisaGraph features by:

- Going through other exercises in the LisaGraph Tutorial, Section C.
- Using the LisaGraph Reference Guide, Section D, as you do your work.
- Just experimenting as you use LisaGraph. Remember -- when experimenting, you usually have to select something first. It's safe to experiment because most of the things you do can be undone by choosing Undo Last Change from the Edit menu.

Other LisaGraph features include:

- Enlarging or shrinking the viewing areas for the graph and data-entry table.
- Creating mixed bar/line charts.
- Customizing the x- and y-axes.
- Adding titles and annotations anywhere to the graph.
- Choosing from a variety of typestyles for graph titles.
- Cutting and pasting between LisaGraph documents, from LisaCalc to LisaGraph, and from LisaGraph to LisaDraw.

Map To Lisa Manuals


Have you set up your Lisa?
Yes
No
Set up Lisa following the instructions in the Lisa accessories box or in Appendix 1, Setup Procedures, of the Lisa Owner's Guide.
Have you done LisaGuide, in which Lisa introduces Lisa?
Yes
No
Go to Section A, LisaGuide, in the Lisa Owner's Guide.
Go to Section A, Getting Started, in any Lisa tool manual, to quickly learn the essentials of any tool while working on Lisa.
Do you want to learn the essentials of another tool now?
Yes
No
You Are Here
Have you read Section B, Lisa Fundamentals, in any Lisa tool manual?
No
Yes
Go to Section B, Lisa Fundamentals, in any Lisa tool manual, to learn what to do to get ready for long-term work on Lisa.
You are now ready to start doing your own work on Lisa.
Go to Section D, Reference Guide, in any Lisa tool manual, to look up how to do specific tasks.
Go to Section C, Tutorial, in any Lisa tool manual, for self-paced instructions on Lisa.
Do you have specific questions about using the desktop?
Yes
No
Go to Section E, Desktop Manager Reference Guide, in any Lisa tool manual, to look up procedures for filing and for setting Preferences.
Do you have any questions about the Lisa system, how to care for your Lisa, or how to figure out what's wrong when Lisa is not acting normally?
Yes
No
Go to the Lisa Owner's Guide.
Do you need a very quick reminder on how to do something?
Yes
Refer to the Quick Reference Card in the pocket of the back cover of any Lisa tool manual.

B

Lisa Fundamentals

SECTION B, Lisa Fundamentals, has been moved to a separate binder.

In final Lisa manuals, Section B and Section E will be placed in the Lisa Owner's Guide.

C

LisaGraph Tutorial

Section C

LisaGraph Tutorial

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WHAT'S IN THE LISAGRAPH TUTORIAL?

This tutorial teaches you about LisaGraph as it guides you step by step through several real-life examples. To get the maximum value from this tutorial, you should try out the examples on Lisa as you go through it.

All major LisaGraph features are covered in the tutorial, but not always in fine detail. A complete description of each LisaGraph feature can be found in Chapter 2 of Section D, the LisaGraph Reference Guide, in this manual.

Before you start this tutorial, be sure you have completed LisaGuide, in which Lisa introduces Lisa; you can find the LisaGuide diskette in the front pocket of the Lisa Owner's Guide. Also, you should have completed Section A, Getting Started with LisaGraph, in this manual. If you haven't completed one or both already, now is a good time to do so.

To complete the activities in this tutorial, you need

- The blank LisaGraph stationery pad which is on your ProFile.
- The examples documents for this tutorial are in the LisaGraph Examples folder which is in the Lisa Graph folder on you ProFile.

The arrow symbol (➤) appears before each activity in the tutorial, and it means "Do something." For example

➤ Turn the page to begin the tutorial.

Chapter 1

Creating a Graph

CHAPTER 1. CREATING A GRAPH

The activities in this chapter cover the most basic information about LisaGraph, such as how to get started, how to create a standard graph, and how to print and file it. In particular, you learn how to

- Get stationery for a new graph.
- Choose a graph format.
- Edit titles and legends.
- Enter and add data to a table.
- Choose a size for the printed graph.
- Display a graph in its actual size and preview it before printing.
- Print a graph and a table.
- File a document.

For the activities in this chapter, assume that you are Fran Compton, Financial Controller for Merle's Sporting Goods. Before the next planning session, you must prepare a graph that compares actual profits with projected profits over the last eight years.

GETTING A NEW LISAGRAPH DOCUMENT

To start LisaGraph,

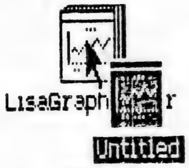
➤ Insert a duplicate Startup diskette into the top disk drive and a duplicate LisaGraph diskette into the bottom disk drive.

➤ Press the on-off button on the front of Lisa to turn it on.

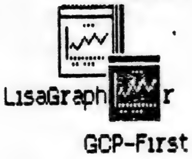
To start a new LisaGraph document,

➤ Open the LisaGraph disk window by clicking twice on its icon.

➤ Tear off a sheet of paper for the new document by clicking twice on the LisaGraph stationery pad icon.



➤ Name the new document by typing your initials followed by -First. This allows other people to use the same diskette and not confuse their documents with yours.



➤ Open the new document's window by clicking twice on its icon.

LisaGraph stationery has a table where you enter the numbers you want plotted, and an empty graph frame surrounded with places for your title, subtitle, axis titles, legends and a footnote. Your document should look like the one shown in Figure C1-1.

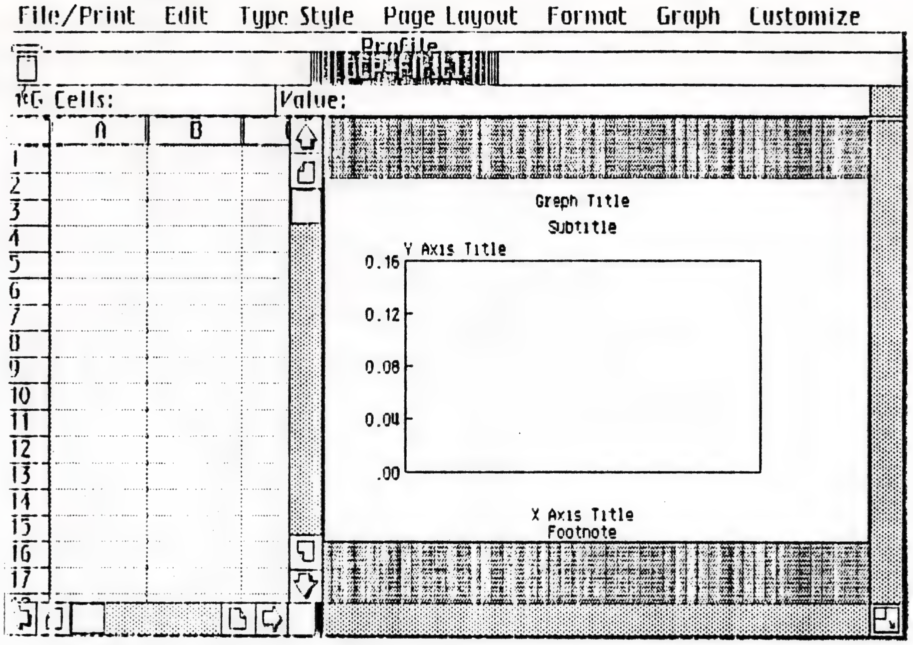
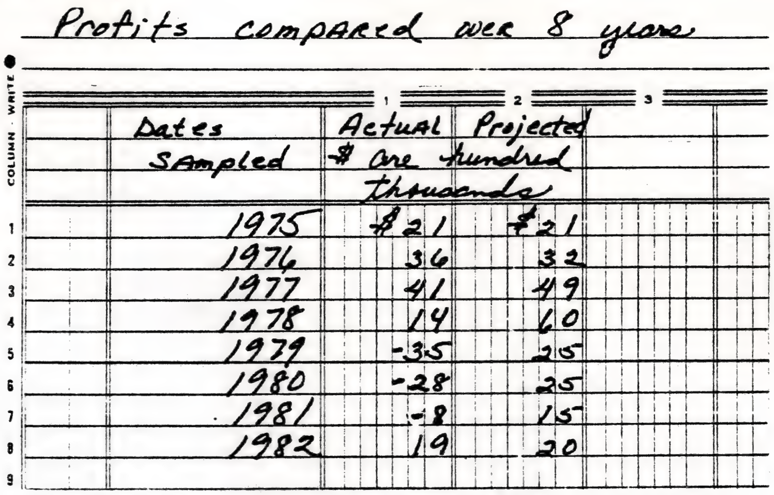


Figure C1-1. LisaGraph Stationery

To start a graph using traditional tools, such as a pen and paper, you would have a table of numbers to be plotted in two dimensions and an empty graph frame. You would determine the X- and Y-axis scales yourself and plot data in the graph frame manually.

However, LisaGraph automatically pairs the X-axis values in the table with the Y-axis values and plots the intersections of data points in the graph frame automatically. In addition, LisaGraph changes the X- and Y-axis scales automatically and labels each appropriately.

For this example, assume that you have data in the form of actual and projected profits for the last eight years, as shown in Figure C1-2, and that you want to compare them.



Profits compared over 8 years

	Dates Sampled	Actual $ are hundred thousands	Projected
1	1975	$21	$21
2	1976	36	32
3	1977	41	49
4	1978	14	60
5	1979	-35	25
6	1980	-28	25
7	1981	-8	15
8	1982	19	20
9			

COLUMN · WRITE
1
2
3

Figure C1-2. Actual Versus Projected Profits

The following steps outline the work flow when you begin a new graph. The activities that you will complete follow the steps.

1. Decide what comparison you want to make and choose the graph form that best suits that comparison. For example, a bar graph is the best graph form when comparing data over time.

2. Decide on a title that communicates the comparison to your audience. For this example, "Profits for Past Eight Years" communicates the comparison.

3. Change the title on the graph.

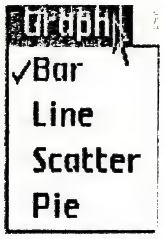
4. Enter the data to be plotted into the table and watch as LisaGraph automatically plots the intersection of data points in the chosen graph form.

It's your turn. Begin with the graph's format.

CHOOSING A GRAPH FORMAT

LisaGraph provides four graph formats because each is suited to a particular kind of comparison. The graph you will create compares data over time. A bar graph best suits a comparison over time. To verify that a bar graph is the chosen graph format,

➤ Move the pointer into the word "Graph" in the menu bar, press and hold down the mouse button while you read the items and note which one is checked; then release the mouse button.



A bar graph is the standard format; the check mark confirms this. To change a graph's format, you just choose another option from the Graph menu. However, for this example, leave Bar checked.

Chapter 5, Sample Graphs, explains the kinds of comparisons that you can show and which graph format best suits a particular comparison. Included are several sample graphs.

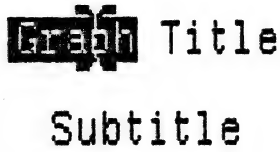
The second step in creating a graph is to title it for your audience. Following are explanations and activities that show you how to change titles and other text on a graph.

EDITING TEXT ON A GRAPH

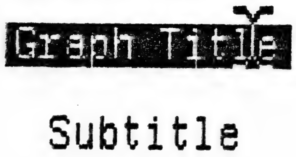
Changing the content of your document is called "editing," which includes adding to, cutting out, moving, or replacing text. Text on a graph consists of a title, subtitle, footnote, and X- and Y-axis titles. In addition, you may add annotations anywhere on a graph.

You need to replace some of text on your graph with descriptive text and remove what you don't need. But first, you must select the text you will change. To select the words "Graph Title"

➤ Move the pointer into the first word, "Graph," click the mouse button; then press and hold it down.



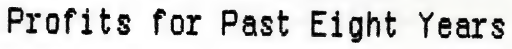
➤ Move the pointer directly into the word "Title," then release the mouse button.



As long as you hold down the mouse button, you can move the pointer into other words on the same line to select them. Notice that the text you selected is highlighted. To replace the selected title with a real one,

➤ Type

Profits for Past Eight Years



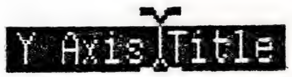
Profits for Past Eight Years

If you make a mistake while typing you may press the [BACKSPACE] key once for each character you want removed. To backspace continuously, press [BACKSPACE], and then press and hold it down until the desired characters are removed.

In addition, you may hold down the Apple key while pressing the [BACKSPACE] key to remove words. Text that you remove with the [BACKSPACE] key may be restored by holding down the [SHIFT] key while pressing the [BACKSPACE] key.

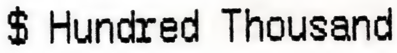
To continue editing the graph, change the Y-sxis title to reflect the magnitude of the profit figures that will be entered and plotted. By the way, you may select an entire line instead of selecting words. For instance,

➤ Move the pointer into the line that reads "Y Axis title" and click the mouse button three times.



Y Axis Title

➤ Type

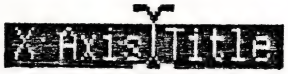


$ Hundred Thousand

$ Hundred Thousand

The X-axis and its title run horizontally across the bottom of the graph. Use it to inform your audience of a change in management. To do this,

➤ Select the line that reads "X Axis Title."

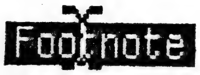


➤ Type

Dates Sampled

To change the word footnote to a phrase that reflects an important point,

➤ Move the pointer into the word "Footnote" and click the mouse button twice.

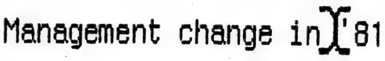


➤ Replace the footnote by typing

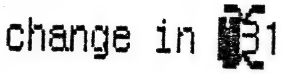
Management Change in '81

A different technique is used to select one or more characters. For example, to select the single quote in the X-axis title,

➤ Move the pointer to the left of the single quote.



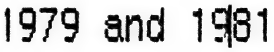
➤ Press and hold down the mouse button while moving the pointer to the right of the quote; then release the mouse button.



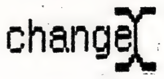
To replace the single quote with other text,

➤ Type

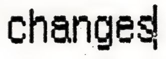
1979 and 19



Now, add the letter "s" to the end of the word "Change" in the X-Axis title.



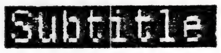
➤ Move the pointer beside the letter "e" in "Change" and click the mouse button once to set the insertion point.



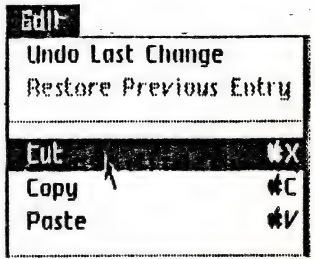
➤ Type

s

The graph you are preparing does not have a subtitle. To remove it,

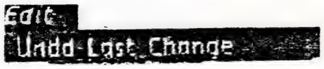


➤ Select the word "Subtitle."



➤ Choose Cut from the Edit menu.

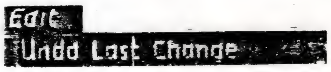
You may restore the cut text to your document, or cancel any change immediately. For example,



➤ Choose Undo Last Change from the Edit menu.

Cut, or copied, text temporarily resides in the Clipboard window until you cut or copy something else. Undo Last Change restored the cut text to the document.

CG1-26 - Pick up



➤ Choose Undo Last Change again to cancel the last undo and remove the subtitle.

After editing the text around your graph, it should look like Figure C1-3.

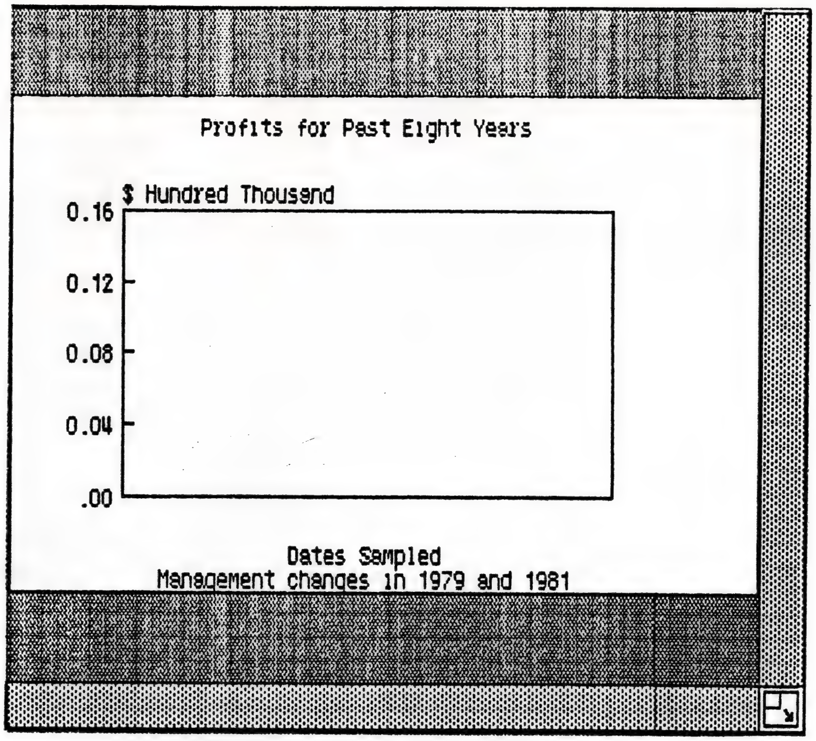

Profits for Past Eight Years
$ Hundred Thousand
0.16
0.12
0.08
0.04
.00
Dates Sampled
Management changes in 1979 and 1981

Figure C1-3. Graph Frame with Real Titles

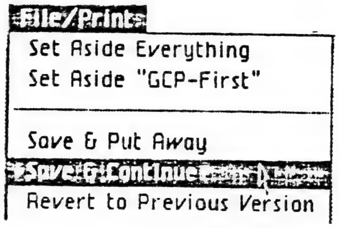
For more information about editing, see Section D, LisaGraph Reference Guide, Chapter 2, under Edit. After editing, save the changes you have made.

SAVING A DOCUMENT

It is a good idea to save the changes you make to a document about every quarter hour that you work on it, and, naturally, save the changes when you finish. That way you have a very up to date document to fall back to should an unforeseen power failure wipe out the changes you are making.

To save your first graph as it looks now,

➤ Choose Save & Continue from the File/Print menu.



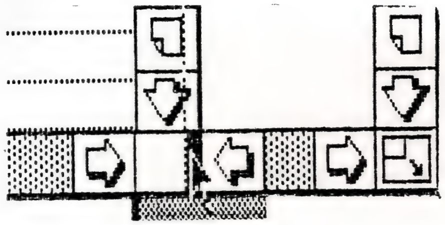
ABOUT TABLES

The information here explains about the table: how to move around it and how to select cells. After you learn how to move around the table and how to select cells, you will enter data in the table on your screen and watch as that data is plotted on the graph automatically.

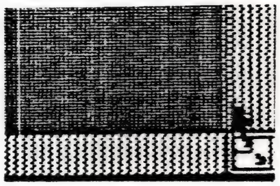
A LisaGraph table is composed of cells that are arranged in rows numbered at the left side of the table and columns labeled alphabetically across the table. Each cell is identified by its coordinates in the table, such as A1 and I200.

Because a LisaGraph table is 255 cells across by 255 cells down, there will be times when you need to see more of it than currently fits in the table view. To widen the table view,

➤ Move the pointer into the width control at the bottom of the table's scroll bar, press and hold down the mouse button while moving the width control and the flickering outline into the middle of column D.



➤ Release the mouse button when the outline is beside the graph's scroll bar.



As soon as you press the mouse button, a flickering outline appears that you can move back and forth until you release the mouse button. Your document should look like Figure C1-4. If it doesn't, move the width control again.

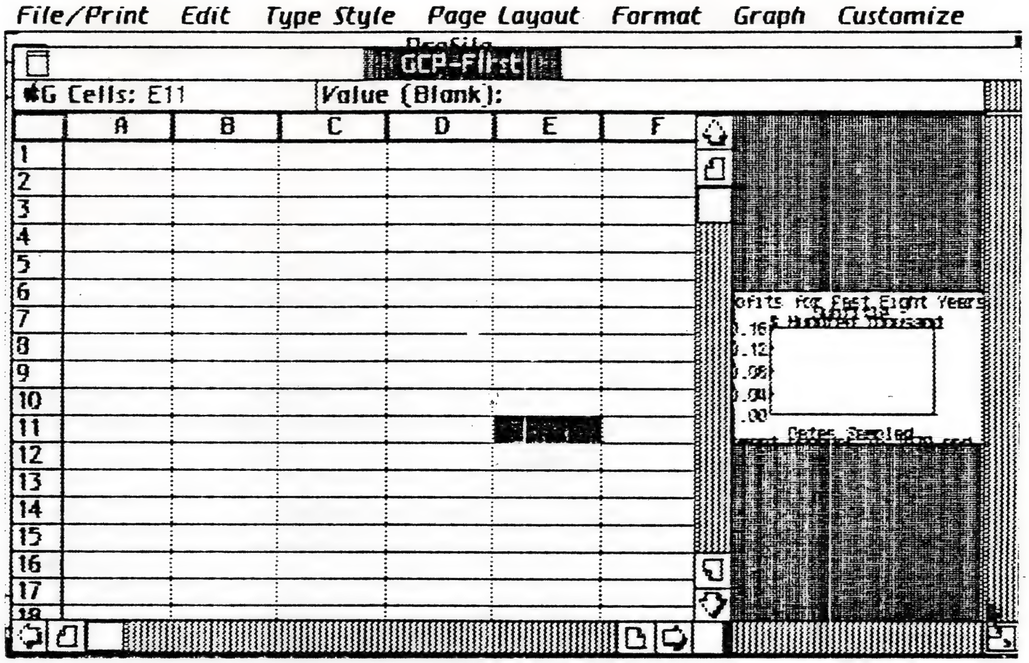


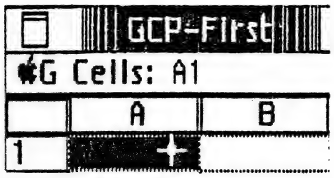
Figure C1-4. Widened Table View

By the way, you may move the width control all the way to the right or left to fill the window with a view of the table or the graph. Now back to the discussion.

Selecting a Cell

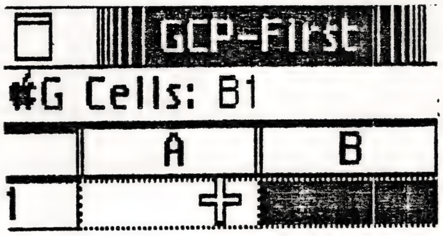
Before you can enter data in the table, you must select the cell you want to enter data into. To select a cell,

➤ Move the pointer, a hollow crosshair in the table, into cell A1 and click the mouse button once. The selected cell is highlighted.



Once you have a cell selected, you can use the [TAB] and [RETURN] keys to move to, and select, other cells. For example,

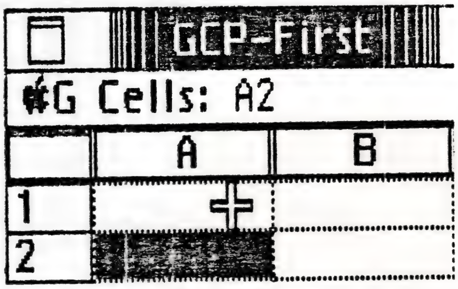
➤ Press the [TAB] key once to get to the next cell in the row, B1.



➤ Press [TAB] several times and watch each cell in the row become highlighted when it is selected.

You may use the [RETURN] key to move down to the first cell in the next row from anywhere in the table. For example,

➤ Press the [RETURN] key. Notice that cell A2 is selected.



➤ Press [RETURN] several times and watch as cell A3, A4, and A5, are selected.

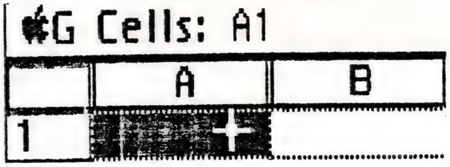
Now that you know how to move around the table and how to select cells, you are ready to enter data in the table.

Entering Values

The data in each cell is called the cell's "value." In the following activities you will enter numeric values that represent years and actual profit figures. As you type values into row 1 of columns A and B, watch as LisaGraph automatically draws a bar on the graph. To enter a value in a cell,

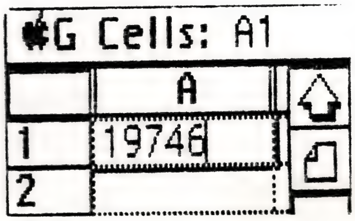
CG1-37 - Pick up

➤ Move the pointer into cell A1 and click the mouse button to select the cell.



➤ Type, using numbered keys,

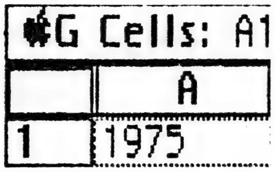
19746



A value isn't accepted until you select another cell, so that you may still correct typing mistakes with the [BACKSPACE] key. For example, to correct the entry in cell A1 so that it reads "1975"

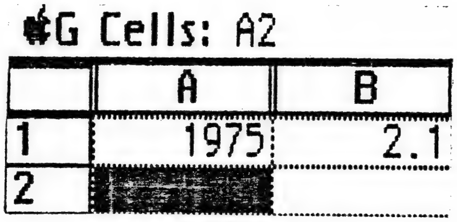
➤ Press the [BACKSPACE] key to remove the 6 and 4; then type

5



➤ Press [TAB] to move into cell B1 and select it; then type

2.1 [RETURN]



The value in cell A1 is coordinated with the value in cell B1 and the intersection of the points is plotted as a bar. Your document should look like the one in Figure C1-5.

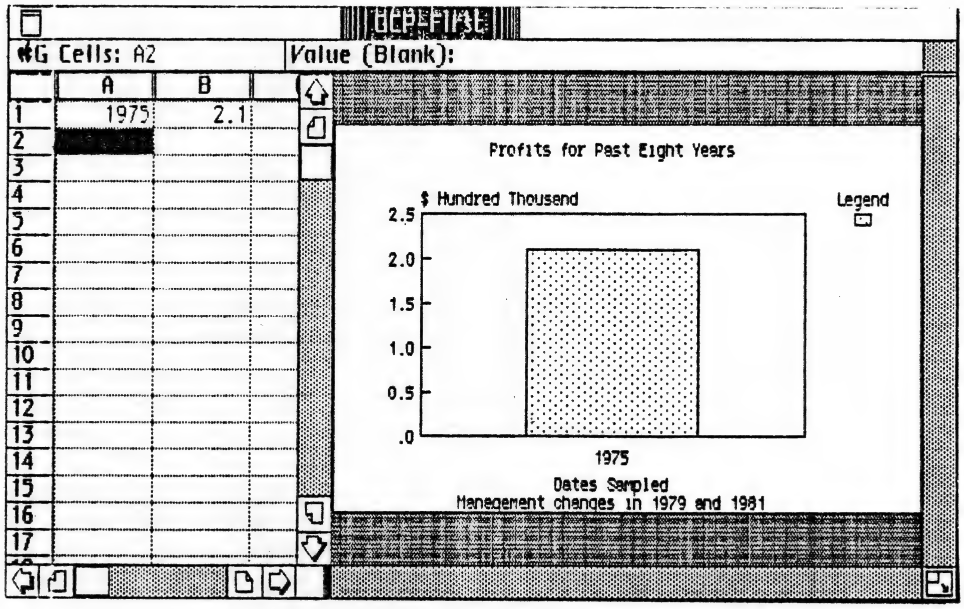


Figure C1-5. Data Pair Plotted as Bar

The value in cell A1 is plotted horizontally across the graph's X-axis. LisaGraph uses each value in column A as an X-axis label. X-axis labels are spaced evenly across the bottom of the graph.

The value in cell B1 is plotted vertically along the graph's Y axis, between the bottom and the top of the graph. LisaGraph calculates the range of Y-axis labels to include all the values in columns B through I. In this case, the Y-axis ranges from zero to slightly above the highest numeric value, 2.1. Y-axis labels appear along the left edge of the graph.

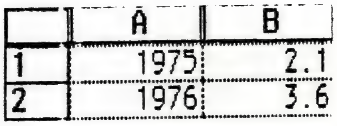
The range of the axis labels determines the amount of white space above and below bars on a graph. For example, the difference between the high point of the Y-axis range and the value of cell B1 provides the white space between the bar and the top of the graph. You will learn how to customize a range of axis labels in Chapter 2, Customizing a Graph.

Adding Values

A data pair, the value in cell A1 paired with the value in cell B1, puts one bar on the graph. When you add another data pair to the table, for example, enter another year in A2 and another profit figure in B2, another bar will be added to the graph.

➤ Select cell A2; then type

1976 [TAB] 3.6 [RETURN]

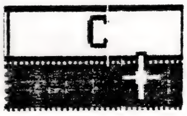


	A	B
1	1975	2.1
2	1976	3.6

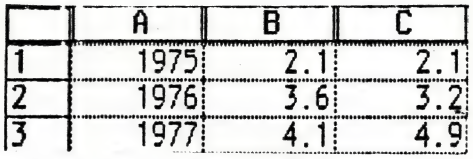
There should be two bars on the graph and the axis labels should have changed to reflect the new values in the table. As long as you enter data into columns A and B, bars will be added to the set and the range of axis labels will be calculated automatically.

However, suppose you want to compare the company's actual profits, in column B, with its projected profits. To do that you would enter figures for projected profits in column C. For example,

➤ Select cell C1 with the mouse and pointer.



➤ Type 2.1 [RETURN] [TAB] [TAB]
3.2 [RETURN]
1977 [TAB] 4.1 [TAB] 4.9 [RETURN]



	A	B	C
1	1975	2.1	2.1
2	1976	3.6	3.2
3	1977	4.1	4.9

Your LisaGraph should look like Figure C1-6.

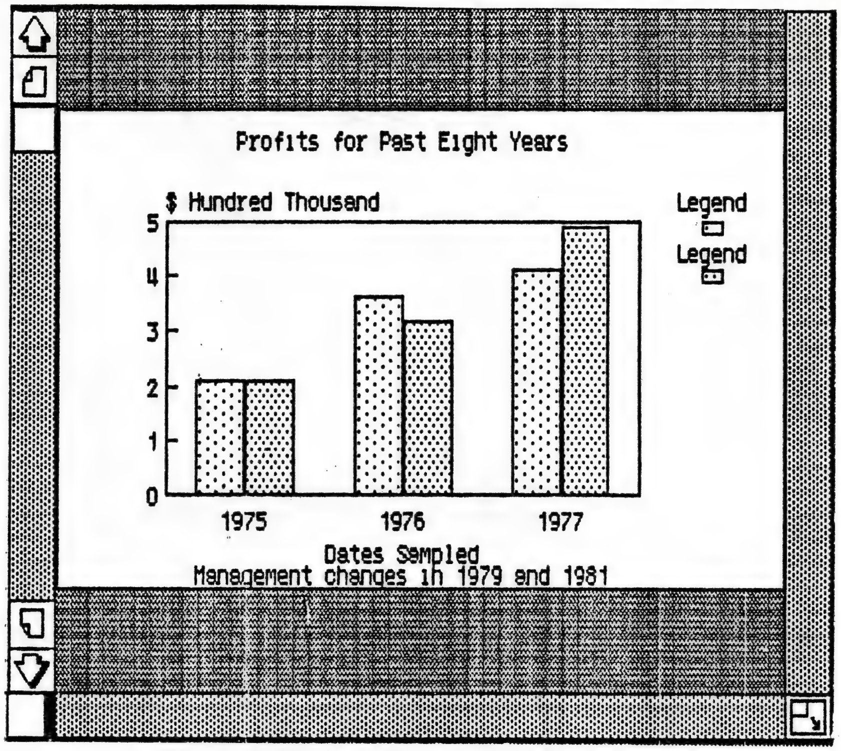

Profits for Past Eight Years
$ Hundred Thousand
5
4
3
2
1
0
1975
1976
1977
Dates Sampled
Management changes in 1979 and 1981
Legend
Legend

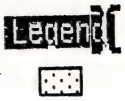
Figure C1-6. Clustered Bar Graph

LisaGraph now compares the data in column A with the data in column C and adds another set of bars, with a different pattern, to the graph to produce what is called a clustered bar graph. Notice that legends appear on the right side of the graph to explain what each pattern represents.

In this case, column A contains dates, column B contains actual profits, and column C contains projected profits. Therefore, the first pattern represents actual profits compared annually, data pairs from columns A:B, and the second pattern represents projected profits compared annually, data pairs from columns A:C.

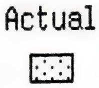
To change the legends on the graph to reflect what the data pairs represent,

➤ Select the first legend.

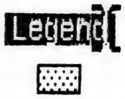


➤ Type

Actual



➤ Select the second legend.



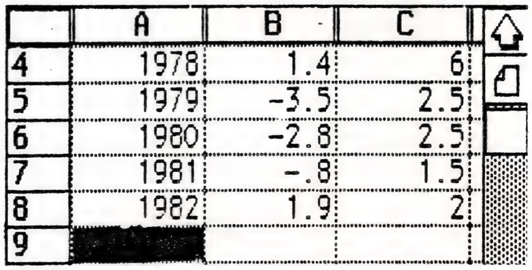
➤ Type

Projected

Though the text of a legend may be edited, its pattern cannot. LisaGraph has eight preset patterns that are designed to look well together on a graph; there is one pattern for each set of data pairs from columns A:B through A:I.

To complete your graph,

➤ Enter these values in your table.



	A	B	C
4	1978	1.4	6
5	1979	-3.5	2.5
6	1980	-2.8	2.5
7	1981	-.8	1.5
8	1982	1.9	2
9			

When you finish entering the data, your graph should look like Figure C1-7. Remember that a value isn't entered, or data plotted, until you select another cell in the table. In addition, you cannot save, file, or print a document with an incomplete entry.

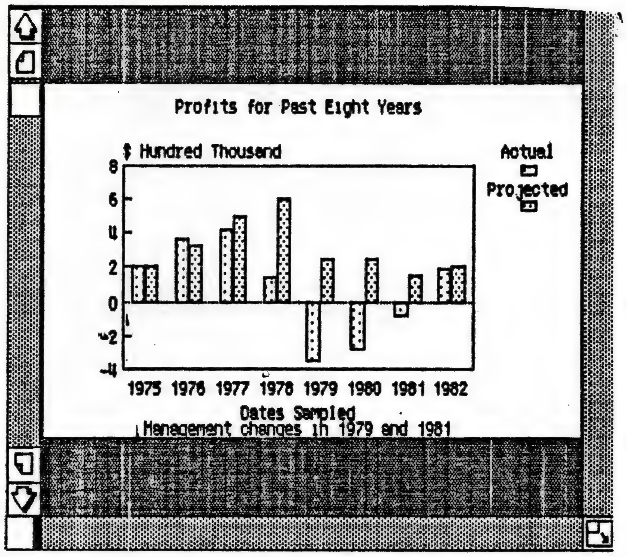
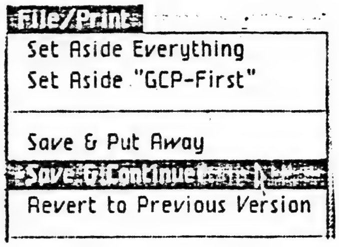


Figure C1-7. Completed Graph

➤ Choose Save & Continue from the File/Print menu.

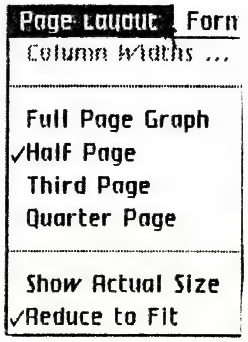


Now that you have completed your graph, you will print it to see how it looks. First, you need to choose a size for the printed copy.

ABOUT GRAPH SIZES

Both the graph's printing and screen sizes are located on the Page Layout menu. To find out what the current sizes are,

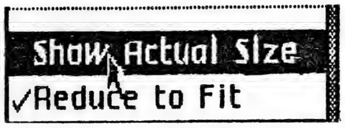
➤ Open the Page Layout menu, read the checked items; then close the menu without choosing an item.



The checked items tell you that the graph will print on half a page and that it is reduced to fit in the graph view regardless of the size of the view. As you prepare your own graphs, you may notice that when a graph is reduced to fit into a very small view, text may overlap on the screen.

To show the graph in its actual size to see how it will look when printed on half of a sheet of 8.5 x 11 inch paper,

➤ Choose Show Actual Size from the Page Layout menu.



The graph expands to the printing size and proportions specified in the Page Layout menu. To expand the graph view so that you can see as much of the graph as possible,

➤ Move the width control to the left edge of the window.

Your graph should fill the window, as shown in Figure C1-8.

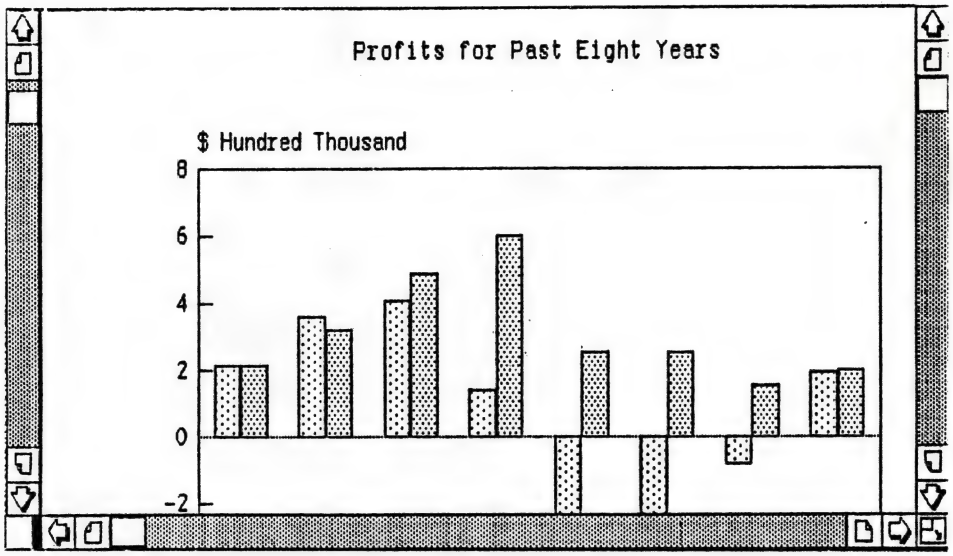
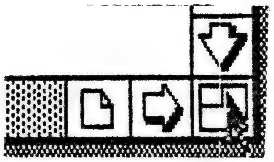


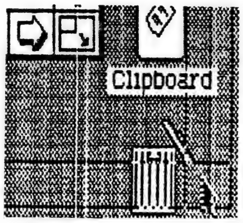
Figure C1-8. Graph Fills Window

To expand the entire window so that you can see more of the graph,

- Move the pointer into the size control box in the bottom right corner of the window.



- Press and hold down the mouse button while moving the flickering outline toward the bottom of the screen and release the mouse button when the pointer is about a half inch from the bottom.



Your screen should look like Figure C1-9.

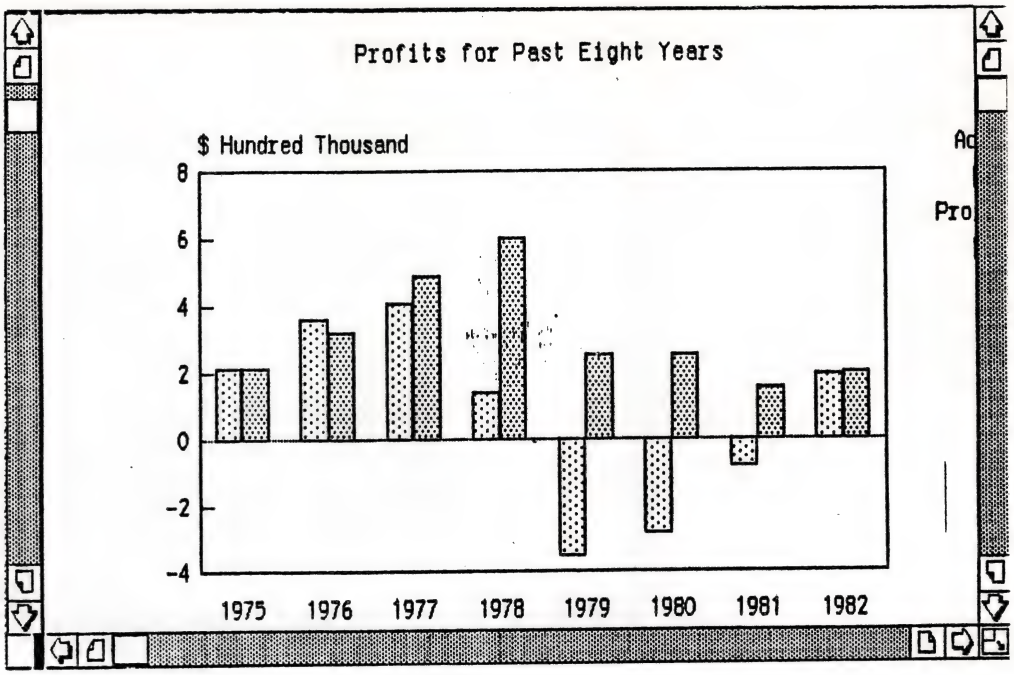
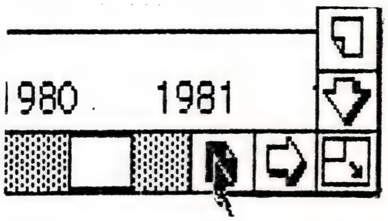


Figure C1-9. Window Shows Almost Half a Page

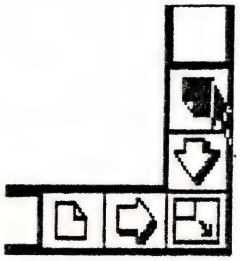
To bring hidden portions of the graph into view,

➤ Move the pointer into the view button in the bottom-right corner of the horizontal scroll bar and click the mouse button.



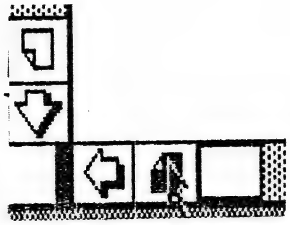
When you choose a view button, a hidden view of the graph appears. In this case, you scrolled the legends on the right side of the graph into view. To scroll into view the X-axis title and footnote at the bottom of the graph,

➤ Move the pointer into the view button at the bottom of the graph's vertical scroll bar and click the mouse button.



To finish previewing the graph,

➤ Choose the view button in the bottom-left corner of the horizontal scroll bar and confirm that nothing on the graph looks cramped or out of place.



PRINTING A LISAGRAPH DOCUMENT

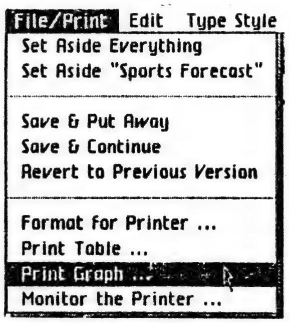
To print a document, you naturally have to have a printer connected to your Lisa. If you don't have a printer, or if it is not set up, you may skip this section for now, and proceed to "Putting Your Document Away."

To find out how to set up your printer and hook it up to the Lisa, refer to the manual that came with your printer.

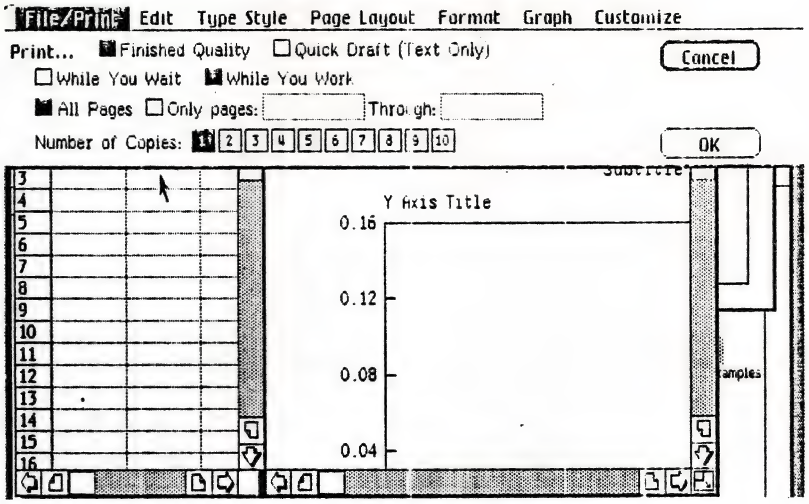
You also need to set up Preferences correctly for your printer. If you have not already done this, do it now. To set up Preferences for your printer, refer to Section E, Desktop Manager Reference Guide, under Set Printer Configuration.

Once the printer and Preferences have been set up, printing your first graph is very easy. Just

➤ Choose Print Graph from the File/Print menu.



A print dialog box appears on your screen, like Figure C1-10.



Print... ■ Finished Quality ☐ Quick Draft (Text Only)
☐ While You Wait ■ While You Work
■ All Pages ☐ Only pages: Through:
Number of Copies: ■1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9 ☐10

Figure C1-10. Print Dialog Box

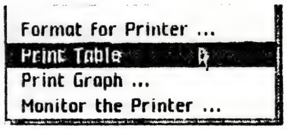
All print settings are as you need them right now. You learn to use the different settings available in the Print dialog box, and the menu item Format for Printer, in Section D, LisaGraph Reference Guide, Chapter 2, under Print.

➤ Click OK in the dialog box.

That's all there is to it! Your document starts printing right away.

You can print the table when the graph finishes printing. To print the table,

➤ Choose Print Table from the File/Print menu.

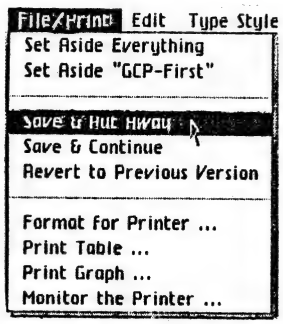


➤ Click OK.

PUTTING A DOCUMENT AWAY

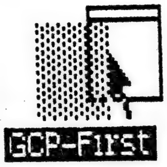
You will need the graph you created in this chapter to complete the activities in Chapter 2, Customizing a Graph. To put this document away,

➤ Choose Save & Put Away from the File/Print menu.



The document window closes automatically and its icon goes back beside the stationery pad in the LisaGraph window. Now you can move the document icon to an empty place in the window.

➤ Move the pointer into the icon of the document you just created. Press and hold down the mouse button while moving the icon to an empty place in the window.



➤ Release the mouse button.

This completes Chapter 1. Go on to the next chapter, if you like, or press the on-off button and come back to it at a later time.

CHAPTER SUMMARY

Open a window	• Move the pointer into an icon and click the mouse button twice.
Get stationery for a new document	• Move the pointer into the LisaGraph stationery icon and click the mouse button twice.
Name a document	• Move the pointer into the document icon and click the mouse button. • Type the desired name.
Choose a graph format	• Choose Bar, Line, Scatter, or Pie from the Graph menu.
Replace text on a graph	• Select the text. • Type the new text.
Insert text on a graph	• Set an insertion point. where you will add text. • Type the new text.
Cut text from a graph	• Select the text. • Choose Cut from the Edit menu.
Cancel a change	• Choose Undo Last Change from the Edit menu.
Save changes to a document	• Choose Save & Continue from the File/Print menu.

Move to/select the next cell in the row	• Press the [TAB] key.
Move to/select the first cell in the next row	• Press the [RETURN] key.
Enter a value in a cell	• Select the cell. • Type the data. • Press [ENTER], or press [TAB] or [RETURN] or select another cell with the mouse and pointer.
Change size of the graph	• Choose a size from the Page Layout menu.
See the graph's actual size	• Choose Show Actual Size from the Page Layout menu.
Expand a view of the graph or table	• Move the pointer into the width control. • Press and hold down the mouse button while moving it and the flickering outline to either the left [to see more graph] or to the right [to see more of the table]. • Release the mouse button when the outline flickers in the desired place.

Print a graph or a table	• Set up printer [see the manual that came with your printer]. • Attach your printer to Lisa through the Preferences window [see Section E, Desktop Manager Reference Guide, under Set Printer Configuration]. • Choose Format for Printer from the File/Print menu. • Click boxes beside desired options in dialog box. • Click OK when the highlighted agree with your printer configuration and preferences. • Choose Print Graph or Print Table from the File/Print menu. • Click boxes beside desired options in dialog box. • Click OK to print.
Put a document back	• Choose Save & Put Away from the File/Print menu.

Chapter 2

Customizing a Graph

CHAPTER 2. CUSTOMIZING A GRAPH

This chapter guides you as you customize a graph with grid lines, annotations, and other styles of text. You also learn about pie charts and how to add a line to a bar graph. Specifically you learn to

- Get a filed graph.
- Add grid lines.
- Change a range of axis labels.
- Plot some data as a line.
- Change type styles.
- Duplicate a graph.
- Annotate a graph for a report.
- Plot data as a pie chart.
- Create your own LisaGraph stationery.

You will use the graph you created in Chapter 1 to complete the activities in this chapter. If you didn't complete the activities in Chapter 1, now is a good time to do so.

GETTING AN EXISTING DOCUMENT

To begin,

➤ Insert a duplicate Startup diskette into the top disk drive and the duplicate LisaGraph diskette you used with Chapter 1 into the top disk drive; then turn your Lisa on.

The LisaGraph disk window should appear on the desktop open. If it isn't open,

➤ Open the ProFile window.

To retrieve the graph you filed at the end of Chapter 1,

➤ Open the LisaGraph folder.

➤ Open the window of the graph you created in chapter 1.

If you cannot locate the graph you created in Chapter 1,

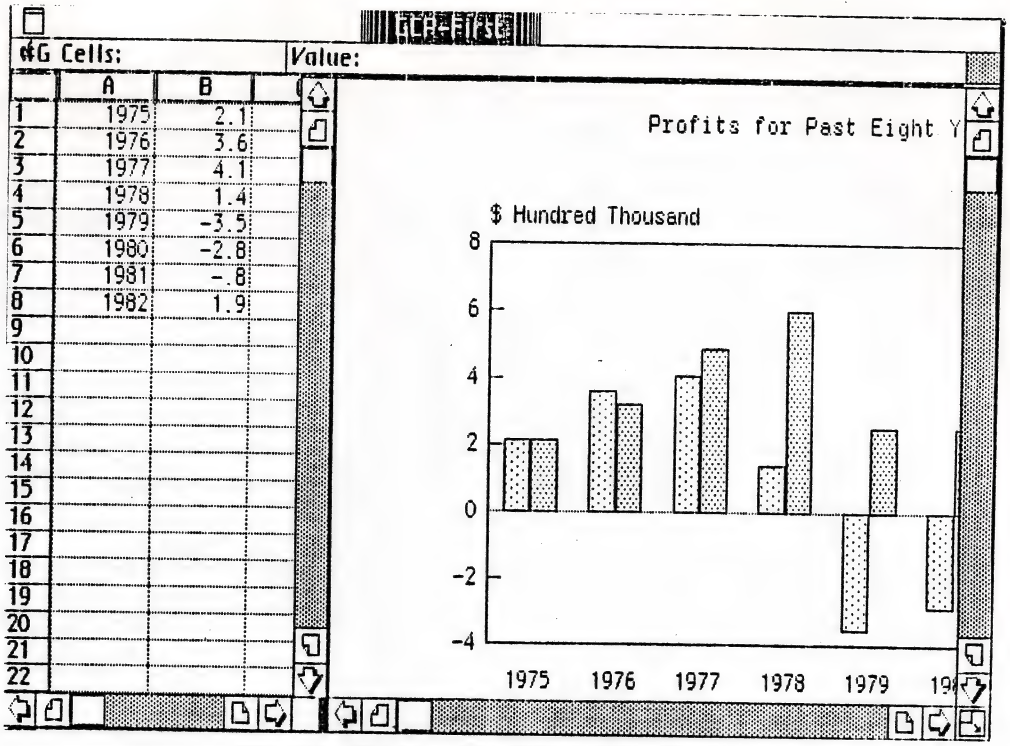
➤ Open the folder named LisaGraph Examples.

➤ Tear a sheet from the stationery pad named LisaGraph Example Ch 2. Type your initials; then type

-First

➤ Open the document's window.

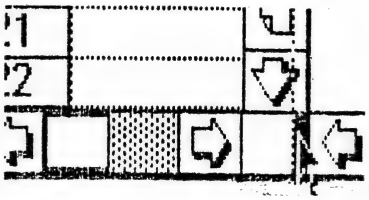
Your document should look like the one shown in Figure C2-1.



	A	B
1	1975	2.1
2	1976	3.6
3	1977	4.1
4	1978	1.4
5	1979	-3.5
6	1980	-2.8
7	1981	-.8
8	1982	1.9

Figure C2-1. Standard Bar Graph

The graph is displayed in its actual size, as it was when you previewed it before printing at the end of Chapter 1. You will be working almost exclusively with the graph while completing the activities in this chapter. To prepare your screen so that you can see the graph but not the table,



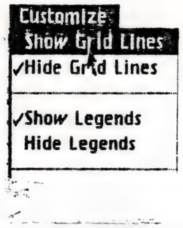
➤ Move the width control and flickering outline into the row numbers on the left side of the table.

When you release the mouse button, the graph should fill the window. To begin customizing your graph, you will add lines to make it more readable. After that you will customize a range of axis labels and change type styles.

ADDING GRID LINES

Grid lines help you interpret data points more precisely. To see what grid lines do,

➤ Open the Customize menu and note which item is checked; then choose Show Grid Lines.



Your graph should look like Figure C2-2. A grid line extends across the graph from each Y-axis label at the left border to the right border.

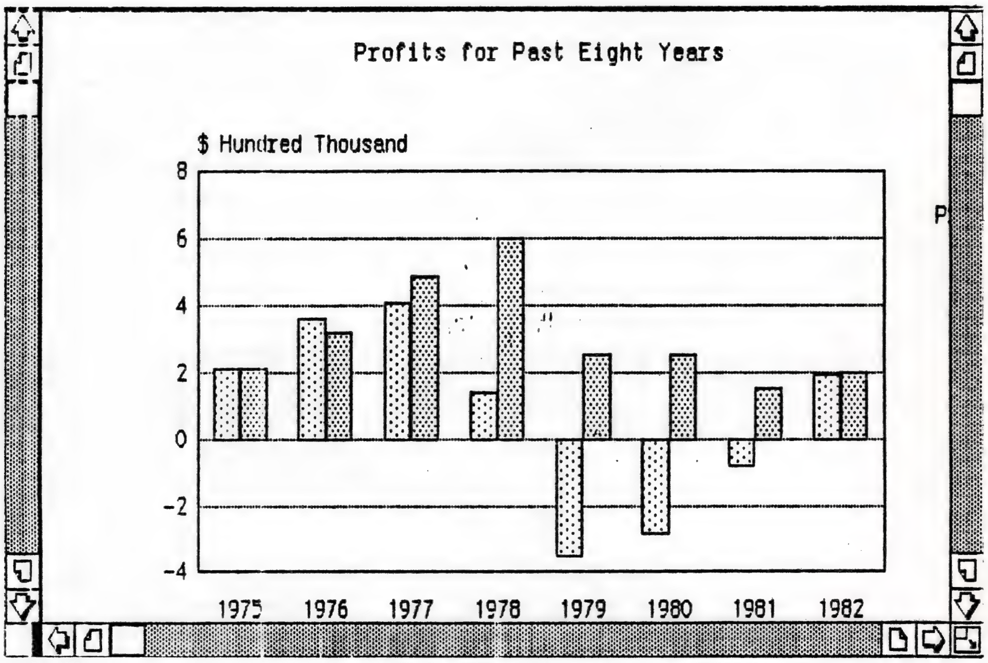


Figure C2-2. Grid Lines

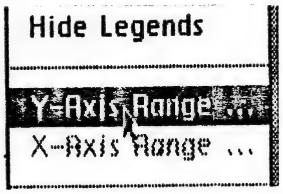
The format of your graph, whether it is a bar or line graph or a scattergram, determines whether grid lines extend only from the Y-axis labels or whether they also extend from X-axis labels to the top of the graph. Chapter 5, Sample LisaGraphs, and Section D, Chapter 2 explain about graph formats and grid lines.

CHANGING A RANGE OF AXIS LABELS

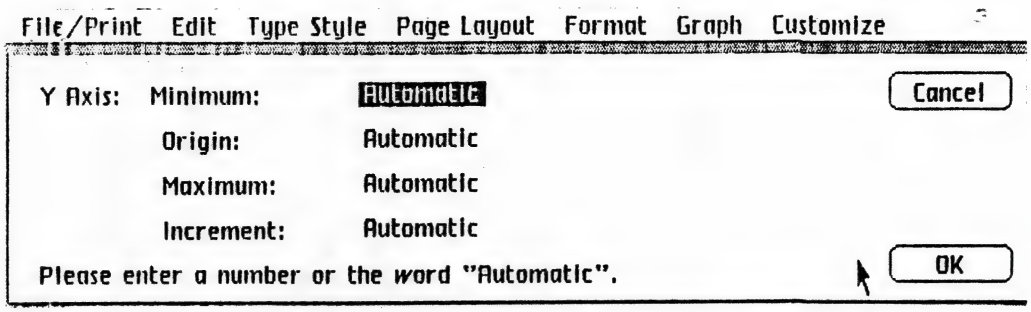
On bar graphs, all values in column A of the table become X-axis labels which appear across the bottom of the graph. For Y-axis labels, LisaGraph automatically calculates a numeric range that includes all values in columns B through I of the table.

Notice that the Y-axis labels on the left side of your graph range from -4 to +8 and that the Y-axis origin is at zero, which accounts for the inverted bars that represent negative values. In most cases, the automatic range of axis labels is appropriate. However, when you aren't satisfied with the automatic range, you may customize it. For example,

➤ Choose Y-axis Range from the Customize menu.



A dialog box appears that shows that the current range was calculated automatically. Your screen should look like Figure C2-3.


File/Print Edit Type Style Page Layout Format Graph Customize
Cancel
OK

Y Axis: Minimum: Automatic
Origin: Automatic
Maximum: Automatic
Increment: Automatic

Please enter a number or the word "Automatic".

Figure C2-3. Automatic Y-Axis Range

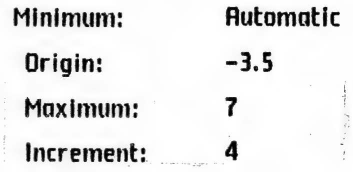
Notice that the values plotted on your graph range between -3.5 to 6.0. To change the origin to -3.5, the maximum to 7.0 and the increment to 4,

➤ Move the pointer into the word "Origin:" and click the mouse button three times to select the current value.

Origin: Automatic

➤Type

```
-3.5 [RETURN]
7 [RETURN]
4
```


Minimum: Automatic
Origin: -3.5
Maximum: 7
Increment: 4

➤ Click OK to set the range.

The Y-axis range is recalculated and the graph redrawn. Your graph should look like Figure C2-4.

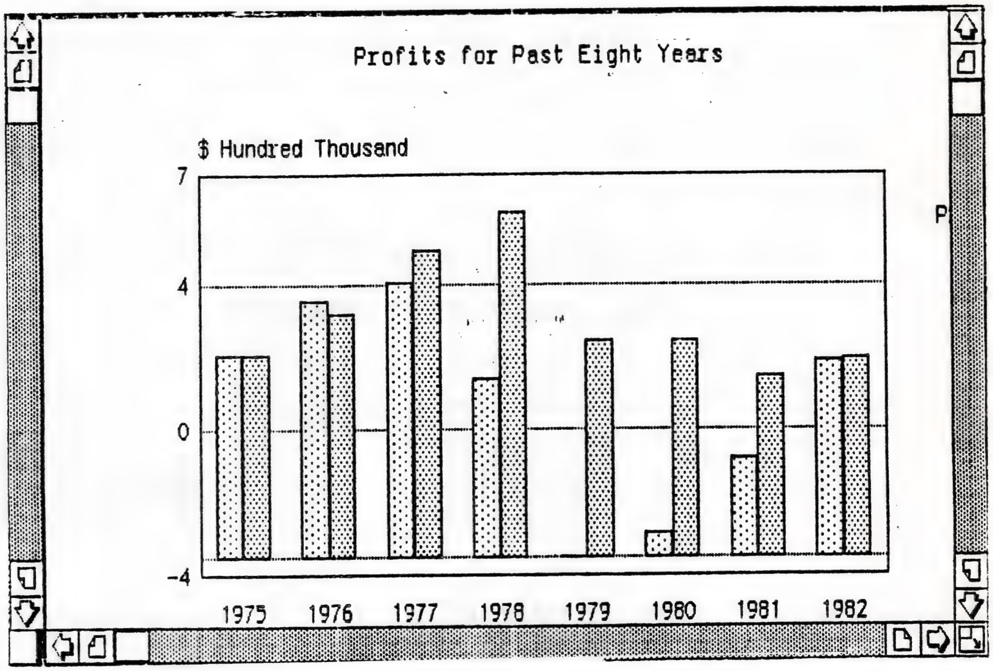
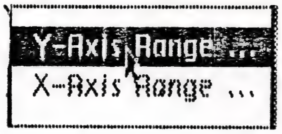


Figure C2-4. Customized Y-Axis Range

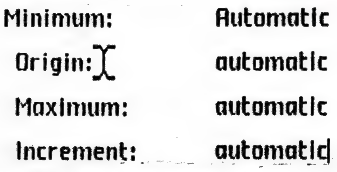
With the axis origin set at the lowest value, instead of at zero, the bars that represent negative numbers are no longer inverted and the drama of the negative values is lost. To restore the automatic range to your graph,

➤ Choose Y-Axis Range from the Customize menu.



➤ Select "Origin:"; then type

automatic [RETURN]
automatic [RETURN]
automatic [RETURN]



Minimum: Automatic
Origin: automatic
Maximum: automatic
Increment: automatic

➤ Click OK.

The automatic range is restored and your graph should again look like Figure C2-3. If you type [RETURN] instead of entering a value in the dialog box, or if the value you enter is not a numeric value, LisaGraph assumes you want the automatic setting.

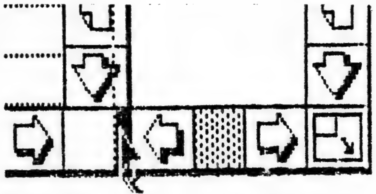
If you enter a value in the table that exceeds the specified axis range, LisaGraph adjusts the range automatically to include the new value. See Section E, Chapter 2, under Format X-Axis Range and Format Y-Axis Range.

PLOTTING SOME DATA ON A BAR GRAPH AS A LINE

Your bar graph uses two sets of differently patterned bars to compare actual profits with projected profits. To dramatize the comparison between actual profits and projected profits, plot one set of values as a line.

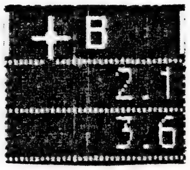
To prepare your screen so that you will be able to see columns A and B in the table and part of the graph,

➤ Move the width control so that the flickering outline touches the word "Value" in the status panel.



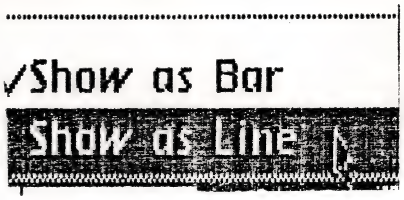
To plot the actual profits in column B as a line on your bar graph,

➤ Select column B by moving the pointer into the column's label, then clicking the mouse button.

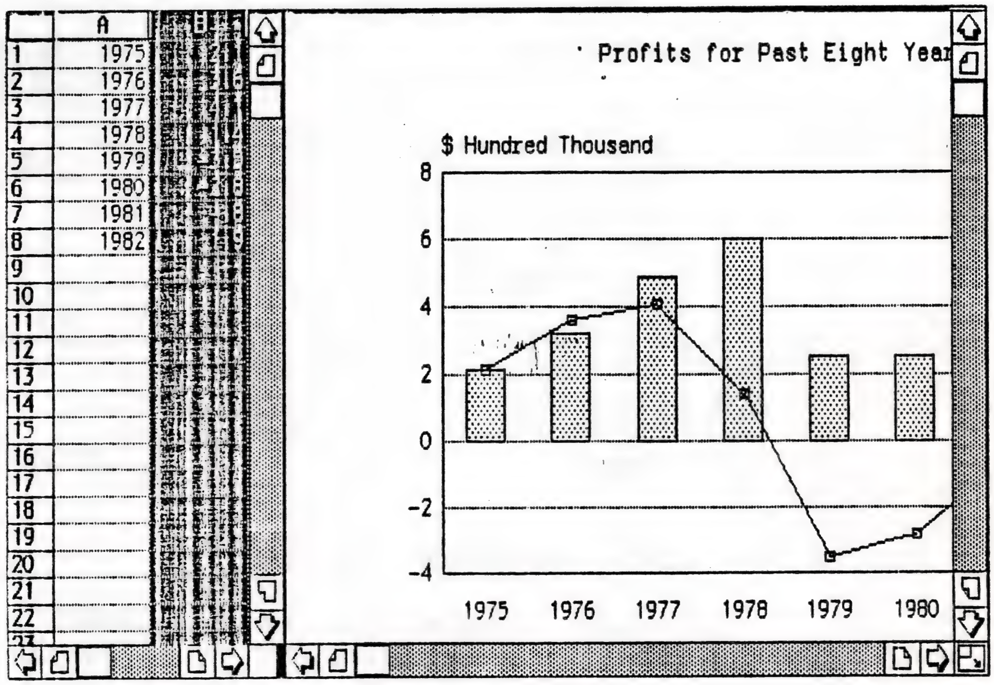


B
2.1
3.6

➤ Choose Show as Line from the Customize menu.



The data in column B is replotted as dots connected with a line. Your document should look like Figure C2-5.



	A	B
1	1975	[illegible]
2	1976	[illegible]
3	1977	[illegible]
4	1978	[illegible]
5	1979	[illegible]
6	1980	[illegible]
7	1981	[illegible]
8	1982	[illegible]

Figure C2-5. Bar Graph with Line

Notice that the bars have been widened to maintain a balanced appearance. To enhance the graph further, you are going to change the style of its title and footnote.

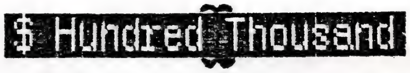
CHANGING TYPE STYLES

Many sizes and styles of type are available from the Type Style menu. Styles include of bold, italic, underline, shadow, hollow and plain. The standard type style is Plain.

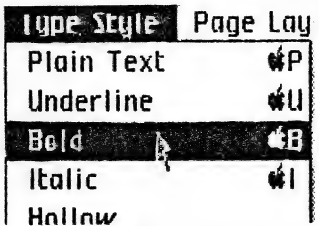
You may change the style of text on a graph only when the graph is shown actual size. You may not change the style of X- or Y-axis labels, however, because they are generated by LisaGraph.

To change the graph's Y-axis title to bold,

- ➤ Select the Y-axis title by moving the pointer into it and clicking the mouse button three times.

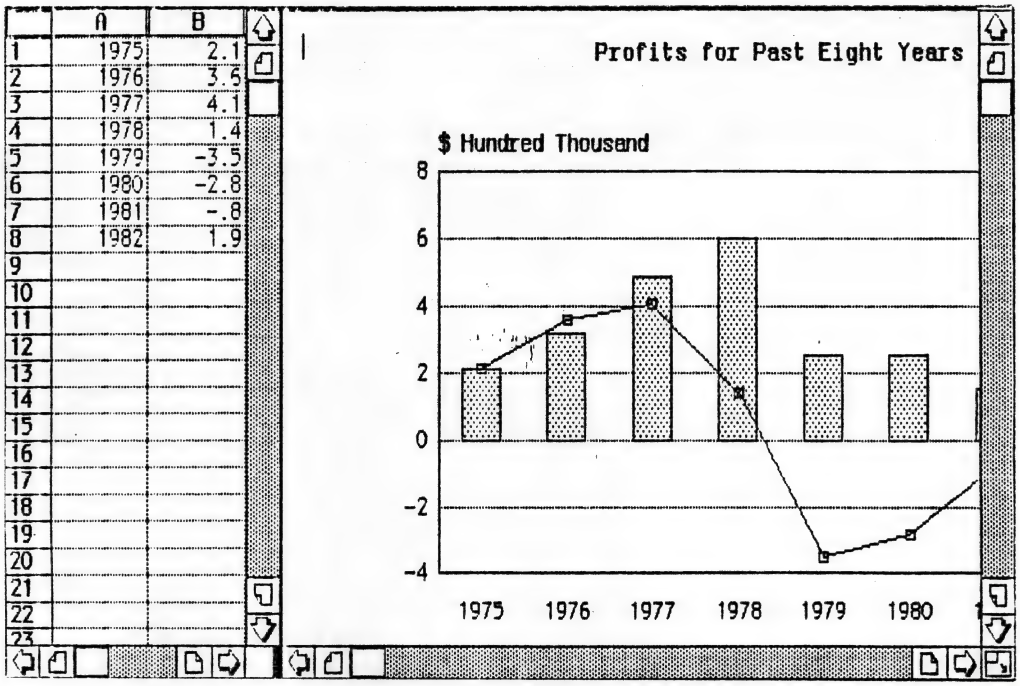


- ➤ Open the Type Style menu and note which items are checked; then choose Bold.



- ➤ Select the graph's title and style it in Bold.
- ➤ Select another spot on the graph so that you can see the bold text.

Your document should look like the one in Figure C2-6.



	A	B
1	1975	2.1
2	1976	3.5
3	1977	4.1
4	1978	1.4
5	1979	-3.5
6	1980	-2.8
7	1981	-.8
8	1982	1.9
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		

Figure C2-6. Bold Title and Y-Axis Title

There are several type "fonts" available in addition to the various styles. A font is type of a particular size and face; a font may be any style. The standard font is plain 12 Pitch Tile.

Section D, LisaGraph Reference Guide, Chapter 2, explains about type styles and sizes for both the graph and table and provides some guidelines used by professional printers. In addition, there are examples of each type style and size in Appendix 4 of this manual.

➤ You may print the graph if you like.

➤ Choose Save & Put Away from the File/Print menu to return the graph to the disk window.

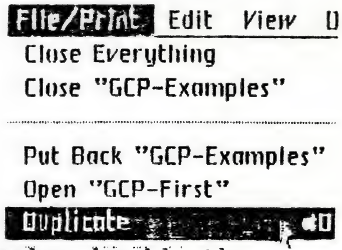
If you would like to stop for a while, this is a good place to do so; you can resume the tutorial with the following section.

DUPLICATING A GRAPH

You are going to make two copies of your graph: one to annotate for a printed report and one to change into a pie chart. To duplicate your first LisaGraph,

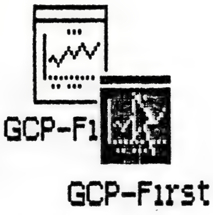
➤ Move the pointer into the icon of your first graph and click the mouse button to select it.

➤ Choose Duplicate from the File/Print menu.



A duplicate is made and its icon flashes beside the original in the window. You must move the duplicate before you do anything else or it will vanish. To move the icon to another spot in the window,

➤ Move the pointer into the flashing icon; then press and hold down the mouse button while moving the icon to a clear spot just to the right of the original.

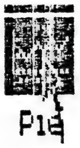


➤ Release the mouse button when the icon is in an open space in the window.

To change the name of the duplicate,

➤ Move the pointer into the duplicate's name and click the mouse button three times to select it; then type

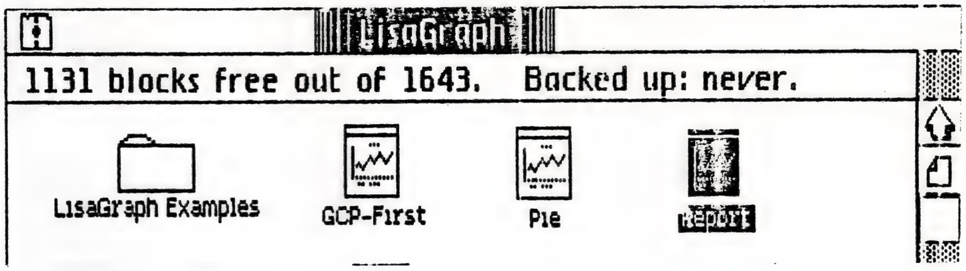
Pie



Now, do the same with the document named Pie.

➤ Duplicate the document named "Pie", move the duplicate to a clear spot in the window and change its name to "Report."

You now have three graphs: the graph you created and customized, a duplicate named "Pie" and another duplicate named "Report," as shown in Figure C2-7.



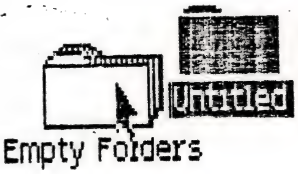
1131 blocks free out of 1643. Backed up: never.

Figure C2-7. Original Document and Two Duplicates

FILING A GRAPH

You could leave the documents where they are in the disk window, but your window would soon become cluttered with a lot of document icons. However, you can create a folder to contain all the related documents. To do this,

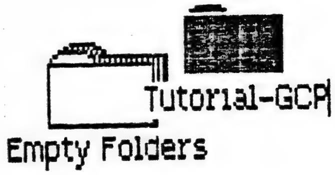
> Move the pointer into the Empty Folder pad icon in the ProFile window and click the mouse button twice.



➤ Type

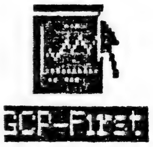
Tutorial-

followed by your initials.

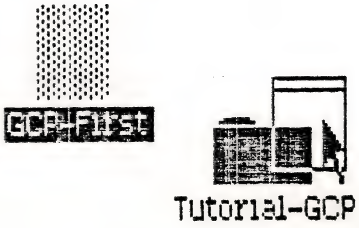


To put your first graph in your personal folder,

➤ Move the pointer into the icon of your first graph. Press and hold down the mouse button while moving the document icon over the folder icon you just named.



➤ Release the mouse button when the folder icon becomes highlighted.



➤ Move the documents named "Pie" and "Report" into your personal folder.

➤ Move your personal folder to a clear spot in the LisaGraph window.

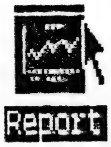
ANNOTATING A GRAPH

It is good practice to keep graphs for overhead or slide presentations simple. When you create graphs for reports you may annotate them to get additional information across.

This version of the graph will be used in a report and needs additional information. To prepare to add information to your graph,

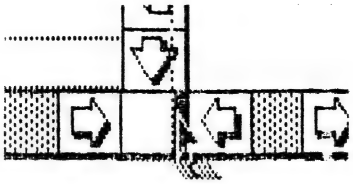
➤ Open your personal folder.

➤ Open the document named "Report."



The document is an exact duplicate of your first graph.

➤ Move the width control and the flickering outline into the row numbers on the left side of the table.



Your graph should fill the window. To insert a note about an overall economic slump from the second quarter of 1978 through the second quarter of 1980,

➤ Move the pointer to the right of the tallest bar on the graph and click the mouse button to set an insertion point.

➤ Type

Overall Economic Slump

To emphasize the annotation,

➤ Select it and choose Bold from the Type Style menu.

➤ Select another spot on the graph so that you can see the annotation clearly.

Your graph should look like Figure C2-8.

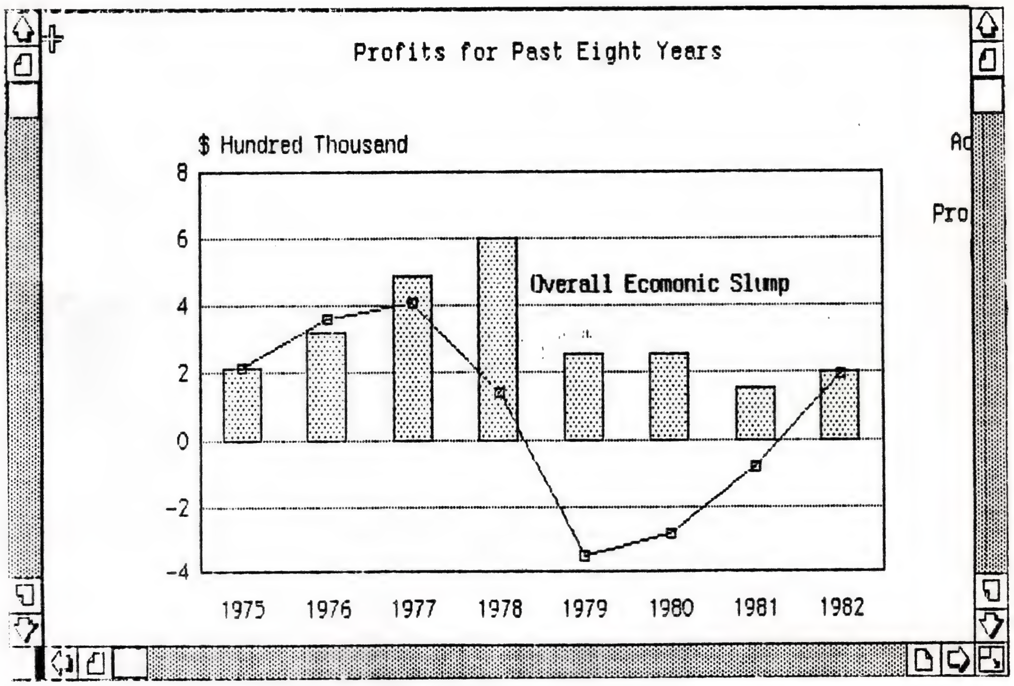


Figure C2-8. Annotated Bar Graph

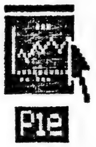
➤ Print the graph if you like.

➤ Put the document away.

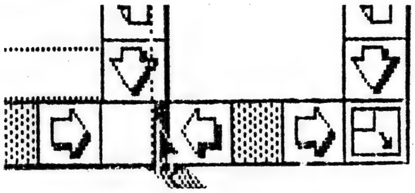
MAKING A PIE CHART

Use the duplicate named "Pie" for this activity. You will change the format of the bar graph to that of a pie chart. To begin

➤ Open the document named "Pie."

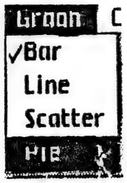


➤ Move the width control and flickering outline into the row numbers on the left side of the table.



The graph should fill the window. To change the bar graph into a pie chart,

➤ Choose Pie from the Graph menu.



Pie charts are calculated from only the data in columns A and B of the table. Since pie charts have no X or Y axis, axis labels are dropped.

The data in column A become segment labels; legends are concealed automatically on pie charts. The data in column B is totaled and each value plotted as a percentage of the total. Segments are arranged clock-wise from largest to smallest, regardless of how data is arranged in the table. Your graph should look like Figure C2-9.

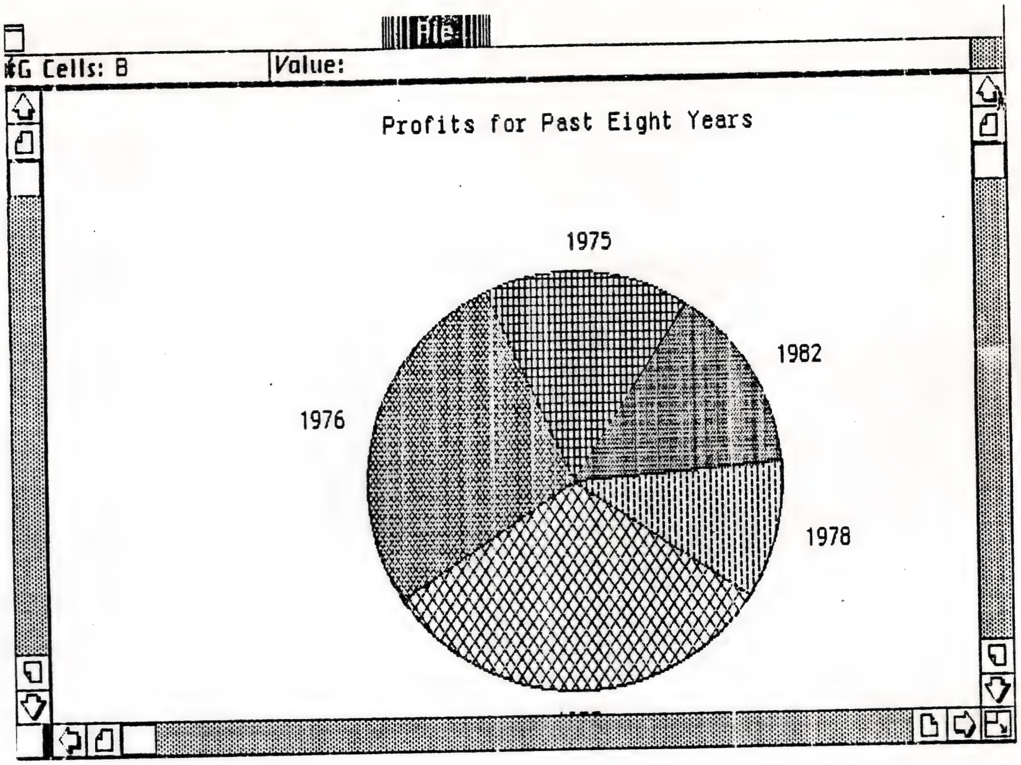


Figure C2-9. Pie Chart

In this case, Actual Profits for each year are compared with the total profits for all years, the whole pie. Negative values are, naturally, not plotted and the negative values do not affect the total profits.

➤ You may scroll hidden portions of the pie chart into view to see how it will look when printed.

➤ You may print the pie chart if you like.

➤ Put the document away; then activate your personal folder and put it away.

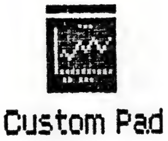
CREATING YOUR OWN STATIONERY

To save time when preparing and formatting graphs, you may want to customize stationery and make a pad with some enhancements already on it. For example, suppose you want grid lines and bold titles on most graphs. To customize your own stationery,

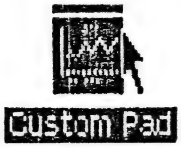
➤ Tear a sheet of from the pad named LisaGraph Paper.

➤ Type the name

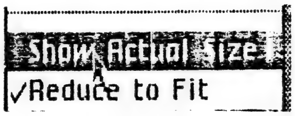
Custom Pad



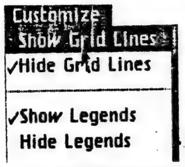
➤ Open the document's window.



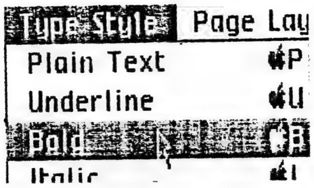
➤ Choose Show Actual Size from the Page Layout menu.



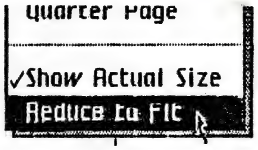
➤ Choose Show Grid Lines from the Customize menu.



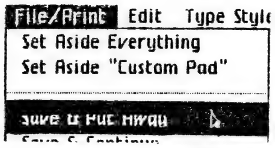
➤ Select the graph title, then choose Bold from the Type Style menu; repeat with the graph's subtitle.



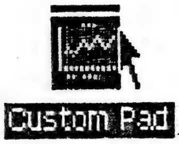
➤ Choose Reduce to Fit from the Page Layout menu.



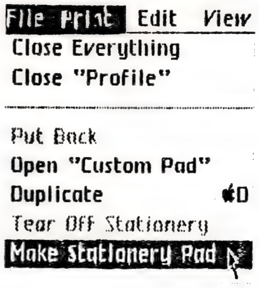
➤ Choose Save & Put Away from the file/Print menu.



➤ Select the document's icon.



➤ Choose Make Stationery Pad from the File/Print menu.



The document is transformed into an endless supply of stationery, which you may use to create new documents. In this case, you get grid lines and a bold title and subtitle on all graphs you make from this stationery.

➤ Move your custom stationery pad to a clear spot in the LisaGraph window.

CHAPTER SUMMARY

Get a filed graph	• Open the window of the disk where the document is stored. • Open the folder where the document is stored. • Open the document's window.
Add grid lines	• Choose Show Grid Lines from the Customize Menu.
Conceal grid lines	• Choose Hide Grid Lines from the Customize menu.
Change a range of axis labels	• Choose X-Axis Range or Y-Axis Range from the Customize menu. • Select the specification to be changed. • Type the new specification. • Repeat to change other range specifications. • Click OK to confirm the new range or click Cancel to cancel the changes you made and dismiss the box.
Plot data on a bar graph as a line	• Select the column in the table that contains the data that you want plotted as a line. • Choose Show as Line from the Customize menu.
Change type styles on a graph	• Select the text to be changed. • Choose one or more styles from the Type Style menu: Bold, Italic, Underlined.

Duplicate a graph	• Select the icon of the graph you want to duplicate. • Choose Duplicate from the File/Print menu. • Move the document's flashing icon to a clear spot in the window or to another diskette or folder. • Change the duplicate's name.
Annotate a graph	• Set an insertion point where you want to add text on a graph. • Type whatever you want to add.
Change graph's format	• Choose a format from the Graph menu: Bar, Line, Scattergram, Pie.
Create your own stationery	• Tear a document from stationery pad named LisaGraph. • Type the name of the new stationery. • Customize the table and graph to suit your application. • Put away the customized document. • Select the document's icon. • Choose Make Stationery Pad from the File/Print menu.

Chapter 3

Formatting and Editing a Table

CHAPTER 3. FORMATTING AND EDITING A TABLE

In this chapter, you concentrate on the table as you change data and see how changes affect the graph. Specifically you learn to

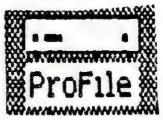
- Change the width of one or more columns.
- Change the table's display size and printing type font.
- Change the alignment and number style of values in a cell.
- Locate and select a particular cell in the table.
- Replace, insert, and cut data from a cell.
- Move a column.
- Insert a column and row.

For the activities in this chapter, assume that you have received a partially completed graph from one of the accountants in your office and that you are responsible for editing the table and getting the graph ready for presentation. If you have used LisaCalc, you may notice many similarities between LisaGraph and LisaCalc; a LisaGraph table and a LisaCalc spreadsheet share many editing features.

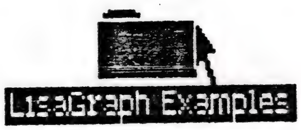
To prepare for the activities in this chapter

➤ Open the ProFile window.

➤ Open the LisaGraph folder.



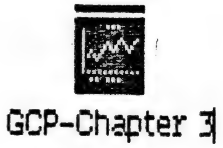
➤ Open the LisaGraph Examples folder.



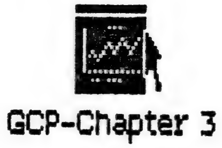
➤ Tear a document from the pad named LisaGraph Example Ch 3.

➤ Type your initials; then type

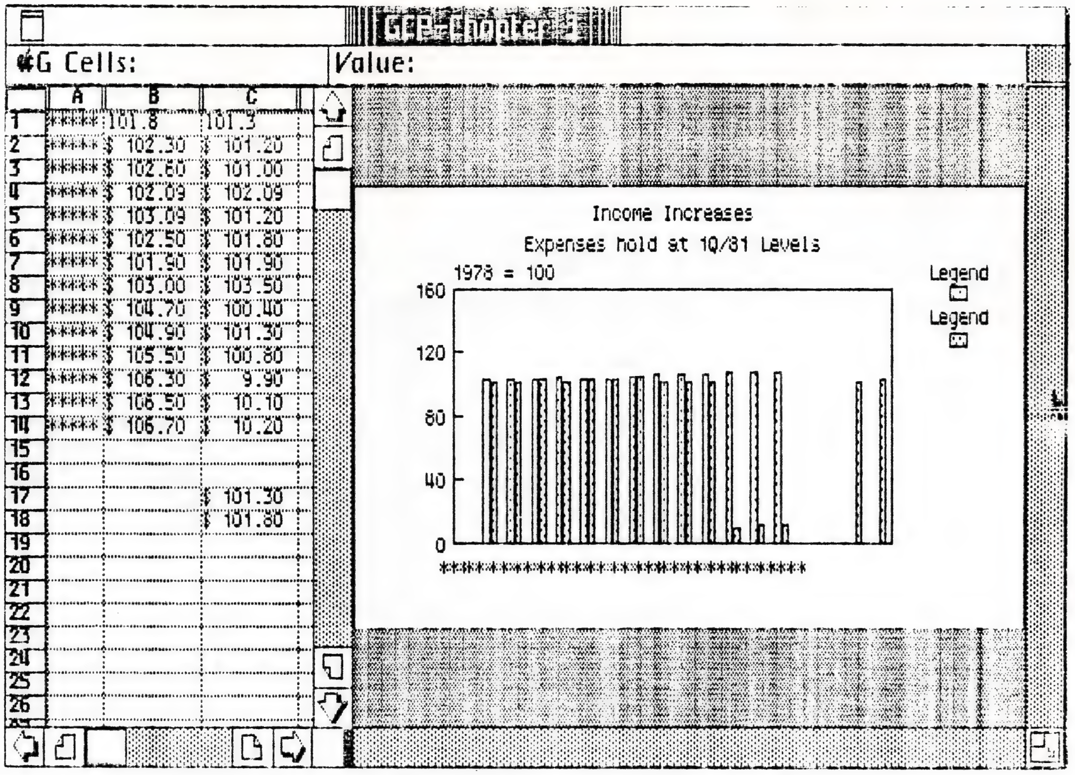
-Chapter 3



➤ Open the document you just named.



Your LisaGraph should look like Figure C3-1.



	A	B	C
1	*****	101.8	101.3
2	*****	$ 102.30	$ 101.20
3	*****	$ 102.60	$ 101.00
4	*****	$ 102.09	$ 102.09
5	*****	$ 103.09	$ 101.20
6	*****	$ 102.50	$ 101.80
7	*****	$ 101.90	$ 101.90
8	*****	$ 103.00	$ 103.50
9	*****	$ 104.70	$ 100.40
10	*****	$ 104.90	$ 101.30
11	*****	$ 105.50	$ 100.80
12	*****	$ 106.30	$ 9.90
13	*****	$ 106.50	$ 10.10
14	*****	$ 106.70	$ 10.20
15			
16			
17			$ 101.30
18			$ 101.80
19			
20			
21			
22			
23			
24			
25			
26			

Figure C3-1. LisaGraph Chapter 3

The graph is supposed to compare income, capital expenses, and total spending at quarterly intervals over a four year period. However, the table currently contains only the Y-axis data: one column of figures each for spending, income, and capital expenses. A column of dates, the X-axis data, must be added to the table before the correct comparison is shown on the graph.

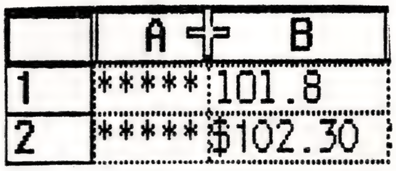
Also, several bars are missing from the graph because some of the Y-axis data is text instead of a number. In fact, there are several changes that must be made to the table before it is legible and before the graph can show the proper comparison. This chapter guides you as you make those changes.

CHANGING COLUMN WIDTHS

Asterisks fill a cell when it is not wide enough to display the values in the cells. You can adjust the width of a column to make cells wider or narrower.

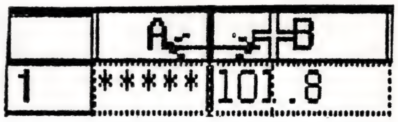
As you can see on your screen, all the cells in column A are filled with asterisks. To change the width of column A so that you can read the values in it,

➤ Position the pointer over the double lines, or grid handle, between column A and column B.



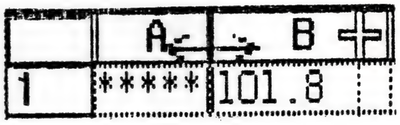
	A	B
1	*****	101.8
2	*****	$102.30

➤ Press and hold down the mouse button while moving the flickering outline into column B.



	A	B
1	*****	101.8

➤ Release the mouse button when the outline is on the right side of the B in the column label.

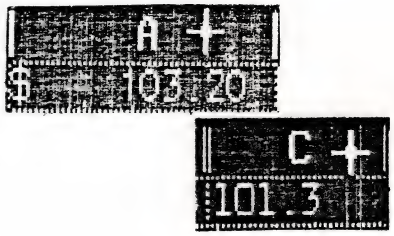


	A	B
1	*****	101.8

You may move a column boundary back and forth until you release the mouse button. When you release the mouse button, the column width is adjusted and repositions following columns.

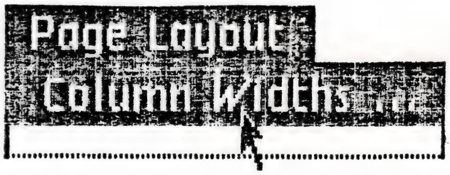
In this case, column A is wider than columns B and C. You can select columns A, B, and C and use a menu item to change the width of all three columns at once. For instance,

➤ Position the pointer in column A's header, press and hold down the mouse button while moving the pointer through column B into column C's header; then release the mouse button.



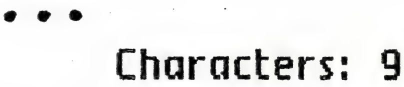
Notice that columns A, B, and C are highlighted.

➤ Choose Column Widths from the Page Layout menu.



➤ When the dialog box appears telling you how many characters the first column in the selection can accommodate, type

9

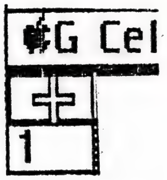


• • •

Characters: 9

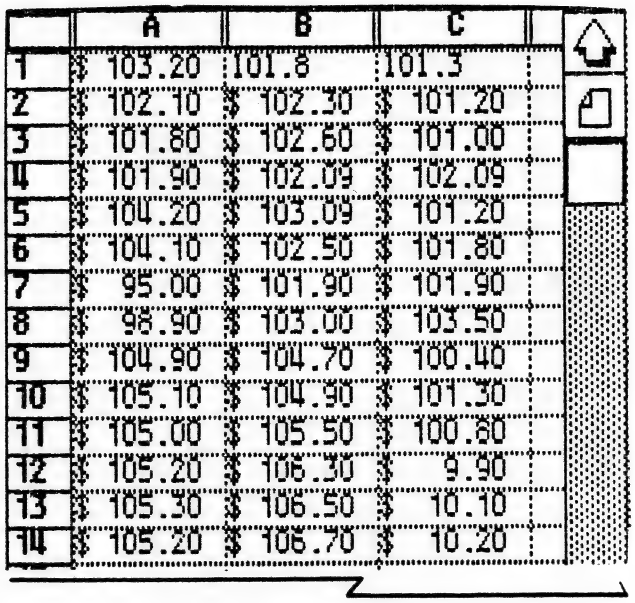
➤ Click OK.

All three columns are adjusted to accomodate 9 characters each. Now,



➤ Move the pointer into the unlabeled box above row 1 and click the mouse button.

Notice that nothing in the table is selected. Your table should look like the one in Figure C3-2.



	A	B	C
1	$ 103.20	101.8	101.3
2	$ 102.10	$ 102.30	$ 101.20
3	$ 101.80	$ 102.60	$ 101.00
4	$ 101.90	$ 102.09	$ 102.09
5	$ 104.20	$ 103.09	$ 101.20
6	$ 104.10	$ 102.50	$ 101.80
7	$ 95.00	$ 101.90	$ 101.90
8	$ 98.90	$ 103.00	$ 103.50
9	$ 104.90	$ 104.70	$ 100.40
10	$ 105.10	$ 104.90	$ 101.30
11	$ 105.00	$ 105.50	$ 100.60
12	$ 105.20	$ 106.30	$ 9.90
13	$ 105.30	$ 106.50	$ 10.10
14	$ 105.20	$ 106.70	$ 10.20

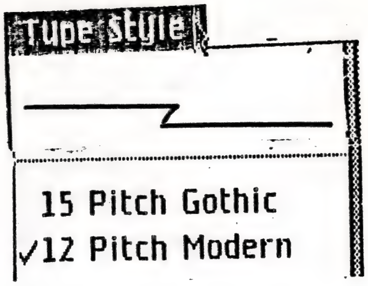
Figure C3-2. Matching Column Widths

Notice how difficult it is to read the values in the table. The next thing to do is to display the table in a readable size.

TYPE SIZES AND THE TABLE

When part of the table is selected, the Type Style menu lists several type fonts for printing and several type sizes for the screen. A font is type of a particular size and face. To find out in which type font the table will print,

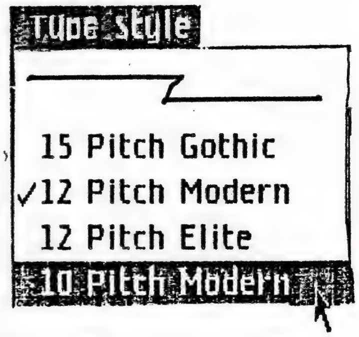
- ➤ Open the Type Style menu and read the checked item in the middle; then release the mouse button without choosing an item.



12 Pitch Modern was checked, which means the type size is twelve characters per inch in the Modern face. You can print any font using a dot-matrix printer. If you are using a letter quality printer, the table will print in the size and face on the print wheel.

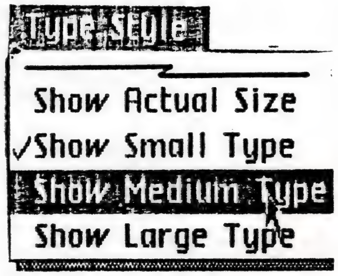
To choose a different size type font, say 10 characters per inch in the Modern face,

- ➤ Choose 10 Pitch Modern from the Type Style menu.

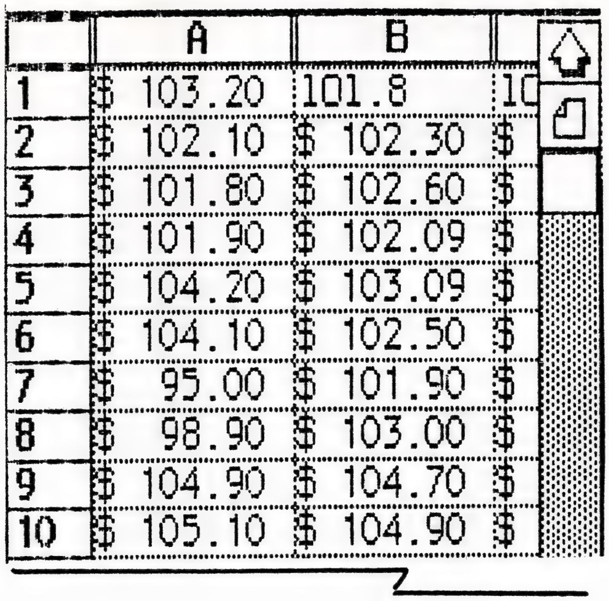


The bottom portion of the Type Style menu lists sizes used to display the table on the screen. To change the table's display type-size,

- ➤ Open the Type Style menu, note the display size checked at the bottom; then choose Show Medium Type.



The table had been displayed in small type, fifteen characters per inch. You just changed the display type size to medium, twelve characters per inch. Your table should look like the one in Figure C3-3.



	A	B	
1	$ 103.20	101.8	1
2	$ 102.10	$ 102.30	$
3	$ 101.80	$ 102.60	$
4	$ 101.90	$ 102.09	$
5	$ 104.20	$ 103.09	$
6	$ 104.10	$ 102.50	$
7	$ 95.00	$ 101.90	$
8	$ 98.90	$ 103.00	$
9	$ 104.90	$ 104.70	$
10	$ 105.10	$ 104.90	$

Figure C3-3. Table Shown in Medium Size Type

Show Small Type lets you see a larger portion of the table at one glance. Medium and large type are good displays sizes for reading and editing values. Show Actual Size displays the table on the screen in the same type size that will be printed.

The type styles in the top portion of the menu appear in gray because they can't be used in the table. See Section E, LisaGraph Reference Guide, Chapter 2, for more information about type styles for both graphs and tables.

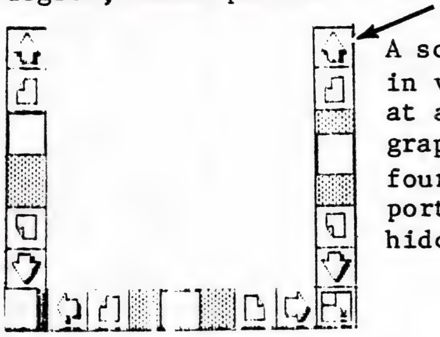
LOCATING INFORMATION IN A TABLE

There are two ways to bring hidden information in a table into view. You may scroll hidden portions of the table into view and you may edit the status panel above the table so that it contains the coordinates of the cells you want to work with.

Scrolling

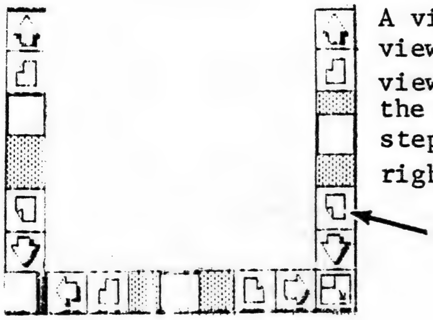
In Chapters 1 and 2 you used scroll controls to bring hidden portions of the graph into view. Now that the table is shown in a larger type size, you will use its scroll controls to bring various portions of the table into view.

Three kinds of scroll controls are provided in the bars that frame the table and graph views, as shown below. Each kind of control adjusts, to a lesser or greater degree, which portion of the document is visible.



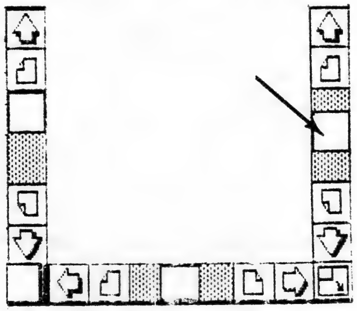
A scroll arrow changes what is in view one line, column, or row at a time. The table view and graph view each have a set of four directional arrows when portions of the document are hidden off-screen.

Locate on your screen the arrows that change the view of the table.



A view button gets the next view-full or the previous view-full. The table view and the graph view have separate step controls to scroll left, right, up, and down.

Locate the table's step controls on your screen.



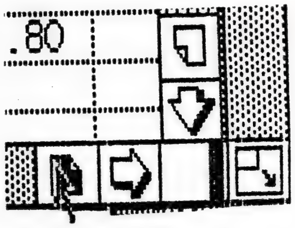
An elevator immediately gets any view of the document, depending on where within the scroll bar you move the elevator. The position of an elevator in its scroll bar indicates where the current view is in relation to the rest of the document.

Note the positions of the table's elevators in their scroll bars. When a vertical elevator is at the top of its bar,the top of the document is visible; when it is at the bottom of its bar the bottom of the document is visible.

When a horizontal elevator is at the left edge of its scroll bar, the left edge of the document is visible;

when a horizontal elevator is at the right, the right side of the document is visible. The table's elevators indicate that the top-left corner is visible.

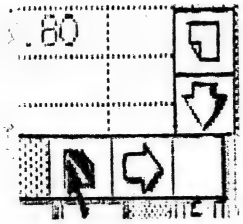
As you scroll, the elevators move to show you where the visible portion of your document is in relation to the beginning and end, and in relation to its left and right edges. Try some short-distance scrolling and see what happens.



➤ Move the pointer into the table's right-view button and press the mouse button once. Notice that column C is in view.

➤ Choose the right-view button again, and column C moves to the left margin.

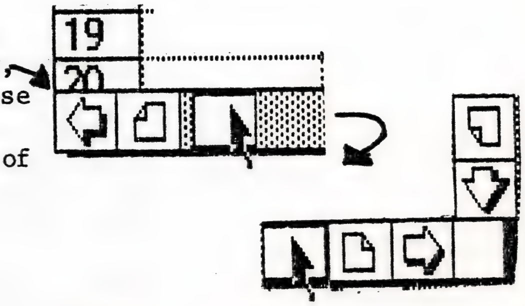
As you scroll, the table's elevator moves slightly in its scroll bar to indicate where the current view is in relation to the rest of the table. The elevator's movement wasn't very noticeable because the table is 255 columns wide.



➤ Position the pointer in the table's right-view button; hold down the mouse button and watch the table scroll continuously while the elevator moves continuously in its bar.

➤ Release the mouse button and note which column is in view.

To scroll quickly through most of the document, for example, to get to the other side of the table, you may move the elevator to a new position in its scroll bar. For example,



➤ Position the pointer in the table's horizontal elevator, press and hold down the mouse button while moving the elevator to the right side of the scroll bar.

Column IU appears in the view. Now, to scroll the bottom of the table into view,

➤ Move the table's vertical elevator to the bottom of its scroll bar.

The bottom-right corner of the table is visible, row 255 of column IU. Your table should look like Figure C3-4.

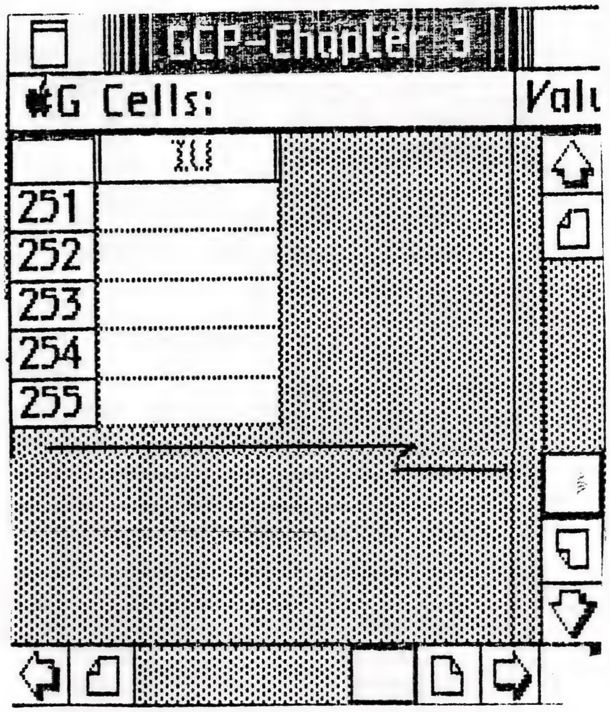


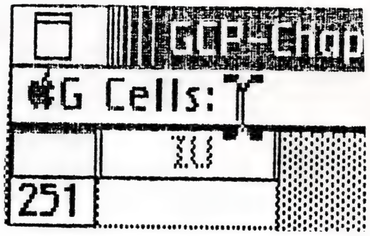
Figure C3-4. Table's Bottom-Right Corner

Rather than moving the table's elevators back to their original positions to get to cell A1, you will change the cell coordinates in the status panel and let LisaGraph locate and select A1 automatically.

Locating Cells Using the Status Panel

The status panel consists of a "Cells:" area and a "Value:" area. The cell area shows the coordinates of the selected cells. When only one cell is selected, the value area shows the cell's value.

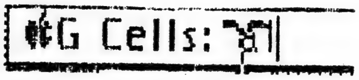
In addition to showing you what in the table is selected, the cell and value areas can be edited. For instance, you can replace the coordinates in the cell area with the coordinates of cells you want to select and LisaGraph will select and display them for you.



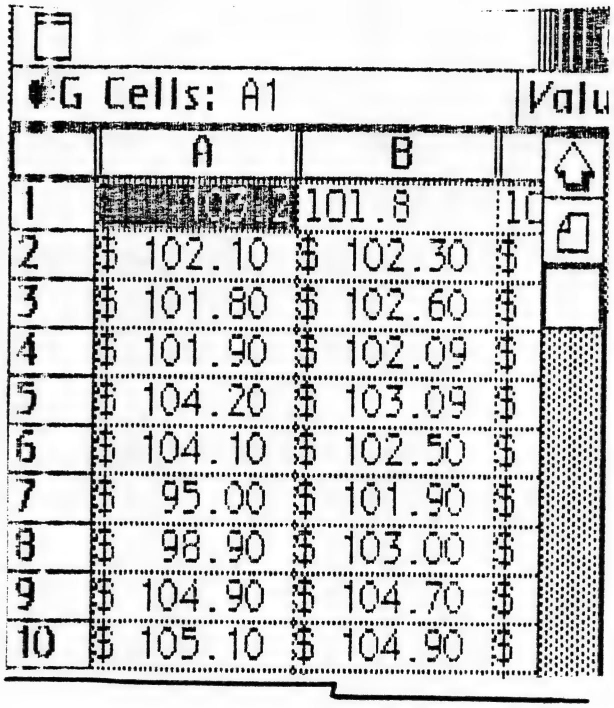
➤ Position the pointer in the word "Cells:" in the status panel and click the mouse button once to set an insertion point or three times to select the current coordinates.

➤ Type

a1 [RETURN]



Cell A1 is selected and brought into view. Notice that the value area identifies the value of cell A1 as a number. Your LisaGraph table should look like Figure C3-5.



	A	B
1	103.2	101.8
2	$ 102.10	$ 102.30
3	$ 101.80	$ 102.60
4	$ 101.90	$ 102.09
5	$ 104.20	$ 103.09
6	$ 104.10	$ 102.50
7	$ 95.00	$ 101.90
8	$ 98.90	$ 103.00
9	$ 104.90	$ 104.70
10	$ 105.10	$ 104.90

Figure C3-5. Status Panel Indicates Selected Cell

➤ Try replacing the current cell coordinates in the status panel with the data below, and see what happens.

3:5 [ENTER]	Rows 3 through 5 are selected and displayed.
B1:D5 [ENTER]	Rows 1 through 5 in columns B, C, and D are selected and displayed.
E:F [ENTER]	Columns E and F are selected and displayed.

Now that you know how to locate information in a table, you are ready to make the necessary changes to it.

ABOUT CELL FORMATS

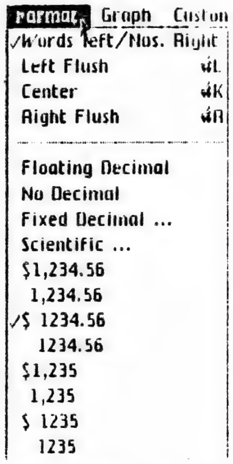
Data is aligned and displayed in a cell according to the format specified on the Format menu. Alignment options, such as left, center, and right, appear at the top of the Format menu. Number styles, such as floating decimal or fixed decimal or a monetary style, appear at the bottom of the Format menu.

To find out which formats are in effect,

➤ Select cell A1, if it isn't already selected.

➤ Open the format menu and note which items are checked: Words Left/Nos. Right at the top of the menu and $ 1234.56 at the bottom.

Close the menu without choosing an item.



The checked items indicate that words are put on the left side of the cell and numbers are put on the right, and that numbers are given a dollar sign and decimal. All cells in columns A through C are formatted this way.

With this information, you can look at cell values and determine which are text and which are numbers. For example, cell B1 must contain text, not a number, because its value is aligned on the left side of the cell.

Notice that the value in cell A1 is aligned on the right, like other numbers, but it has no dollar sign and only one decimal place. The status panel shows that the value of A1 is a number, yet it is not formatted like other numbers in the table.

When the selected cell contains a number, as A1 does, its value is displayed in its simpliest format; number styles are not used when a cell is selected. What you see in cell A1 is the number that was entered as it looks when displayed without a number style.

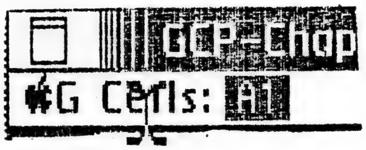
When a cell uses a monetary format, like $ 1234.56, LisaGraph rounds the number to the nearest decimal place. When rounding a number whose last digit is a 5, LisaGraph rounds the previous digit to an even digit; this ensures a correct average. For example,

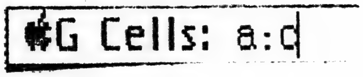
- LisaGraph rounds 1234.575 to 1234.58.
- LisaGraph rounds 1234.565 to 1234.56.

However, since the numbers in the table represent hundreds of thousands of dollars rounded to one decimal place, the wrong format is being used. To correct the format of the three columns,

➤ Position the pointer in the word "Cells:" in the status panel, click the mouse button three times to select its value, then type

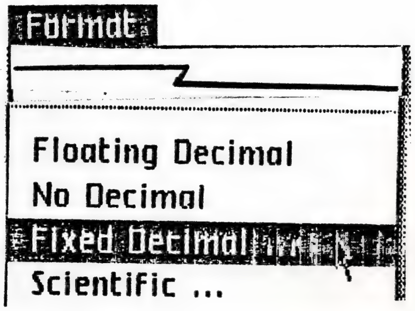
a:c [RETURN]



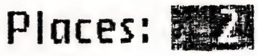


All three columns are selected immediately.

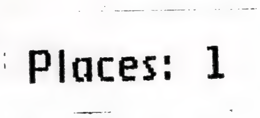
➤ Choose Fixed Decimal from the Format menu.



- ➤ When the dialog box appears with the current number of decimal places, type . . .



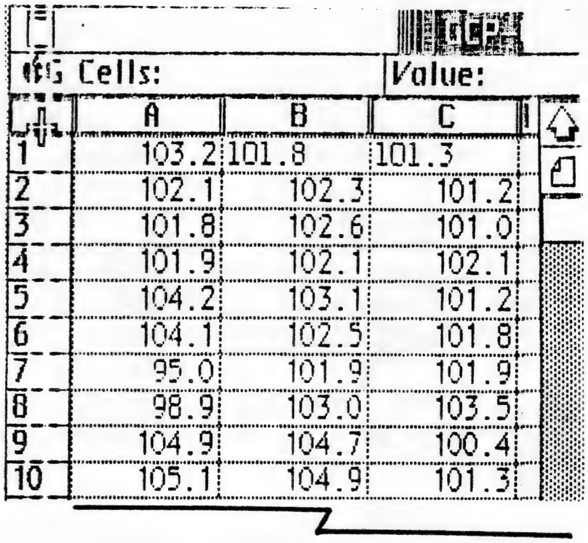
  1



- ➤ Click OK.

The appearance of each value changes immediately. Before you compare your table with Figure C3-6,

- ➤ Move the width control to the right side of the window, to view only the table.
- ➤ Select the unlabeled cell above row 1.



	A	B	C
1	103.2	101.8	101.3
2	102.1	102.3	101.2
3	101.8	102.6	101.0
4	101.9	102.1	102.1
5	104.2	103.1	101.2
6	104.1	102.5	101.8
7	95.0	101.9	101.9
8	98.9	103.0	103.5
9	104.9	104.7	100.4
10	105.1	104.9	101.3

Figure C3-6. Numbers Rounded to Single Decimal Place

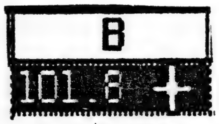
For a comprehensive discussion about cell formats and how they affect cell values, refer to Section E, LisaGraph Reference Guide, Chapter 2.

EDITING THE TABLE

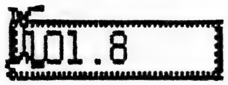
There are several errors in the table that you must correct before the graph is complete and correct. For example, in cells B1 and C1 the letter l (L) was used instead of the number 1 (one) and the letter O was used instead of the 0 (zero). Text cannot be calculated or graphed, so that all Y-axis values must be numbers.

To change the letters in cells B1 and C1 to numbers,

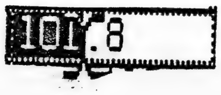
➤ Select cell B1.



➤ Move the pointer to the left side of 101 in cell B1, then press and hold down the mouse button while moving the pointer through 101.



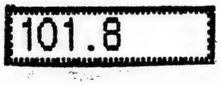
➤ Release the mouse button when 101 is highlighted.



Notice that the values area in the status panel shows what is selected.

➤ Use the numbered keys to type

101



Notice that an insertion mark blinks within the cell and also in the values area of the status panel to show what you are editing. While editing, the status panel doesn't show what kind of value is in the cell.

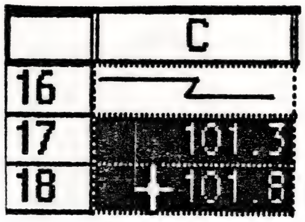
➤ Press the [ENTER] key to complete the change.

When you finish editing, the status panel confirms that cell B1 contains a number. To move to and select cell C1,

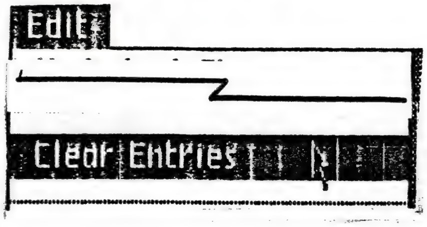
➤ Press the [TAB] key; then replace the letters lOl with the numbers 101, as you just did in cell B1.

Confirm the new value is a number by reading the status panel; then proceed. Cells C17 and C18 contain information that is not pertinent to this graph. To clear these values from the table,

- ➤ Position the pointer in cell C17, press and hold down the mouse button while moving the pointer into cell C18, then release the mouse button.

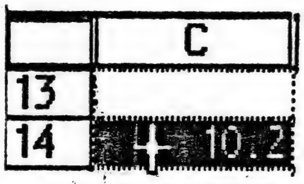


- ➤ Choose Clear Entries from the Edit menu.

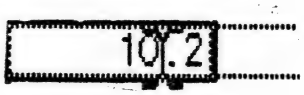


Several cells are missing some data. To add the missing data to your table,

- ➤ Select cell C14.

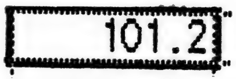


- ➤ Move the pointer between the zero and decimal and click the mouse button to set an insertion point there.

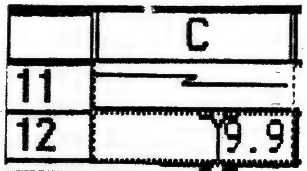


- ➤ Using a numbered key, type

  1

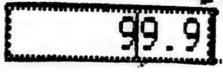


- ➤ Select cell C12, set an insertion point on the left side of "9.9."



- ➤ Type

  9



- ➤ Select cell C13, which enters the last value, and read its value in the status panel.

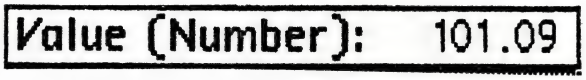
Editing in the Status Panel

In some cases, you may find it easier to edit a value in the status panel than in the cell. For example, assuming that cell C13 is still selected,

- ➤ Position the pointer in the status panel, and set an insertion point between the zero and decimal.

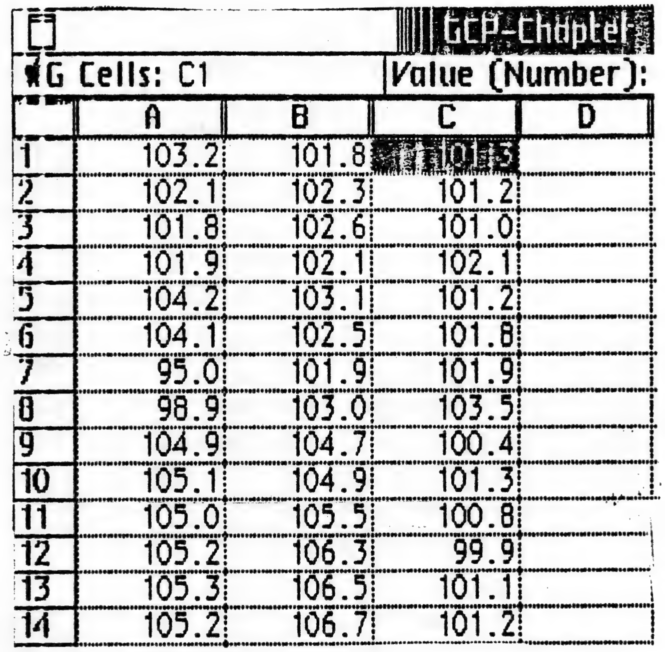
➤ Using the numbered key, type

1 [ENTER]



Value (Number): 101.09

You can edit any value in the status panel; the new value is entered when you select another cell or press the [ENTER] key. Your table should look like Figure C3-7.



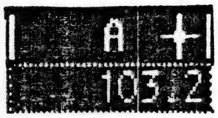
	A	B	C	D
1	103.2	101.8	101.1	
2	102.1	102.3	101.2	
3	101.8	102.6	101.0	
4	101.9	102.1	102.1	
5	104.2	103.1	101.2	
6	104.1	102.5	101.8	
7	95.0	101.9	101.9	
8	98.9	103.0	103.5	
9	104.9	104.7	100.4	
10	105.1	104.9	101.3	
11	105.0	105.5	100.8	
12	105.2	106.3	99.9	
13	105.3	106.5	101.1	
14	105.2	106.7	101.2	

Figure C3-7. Table With Corrected Value

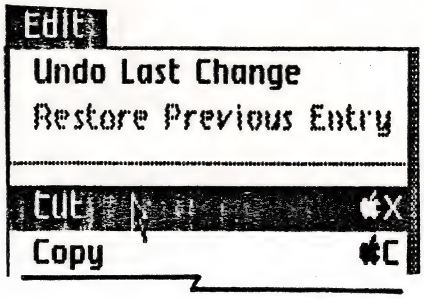
Moving a Column

Column A contains figures for total spending, column B has income figures, and column C contains capital expense figures. The preferred order is income, expenses, spending. To move spending from column A to column C,

➤ Position the pointer in column A's header and click the mouse button to select the column.

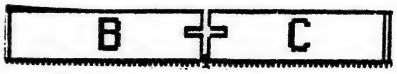


➤ Choose Cut from the Edit menu.

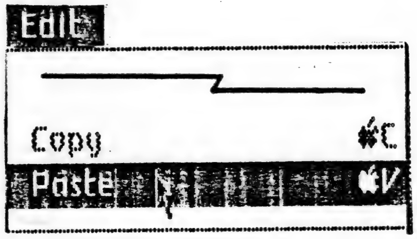


Column A is removed from the table and put on the Clipboard. The remaining columns reorder automatically, columns B and C become columns A and B.

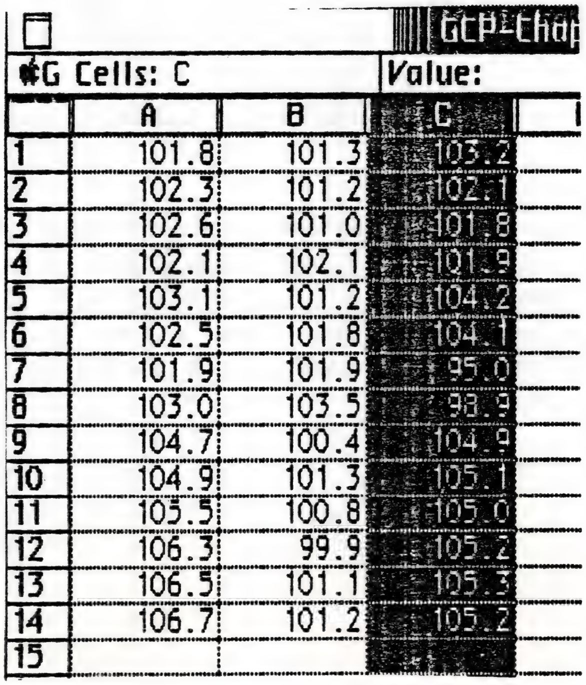
➤ Select the grid handle between column B and C.



➤ Choose Paste from the Edit menu.



The values you cut are pasted into a new column between B and C and all columns to the right reorder automatically. You now have income in column A, purchases in column B, and spending in column C. Your table should look like Figure C3-8.



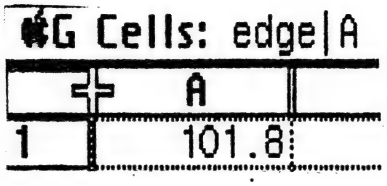
	A	B	C
1	101.8	101.3	103.2
2	102.3	101.2	102.1
3	102.6	101.0	101.8
4	102.1	102.1	101.9
5	103.1	101.2	104.2
6	102.5	101.8	104.1
7	101.9	101.9	95.0
8	103.0	103.5	98.9
9	104.7	100.4	104.9
10	104.9	101.3	105.1
11	105.5	100.8	105.0
12	106.3	99.9	105.2
13	106.5	101.1	105.3
14	106.7	101.2	105.2
15			

Figure C3-8. Reordered Columns

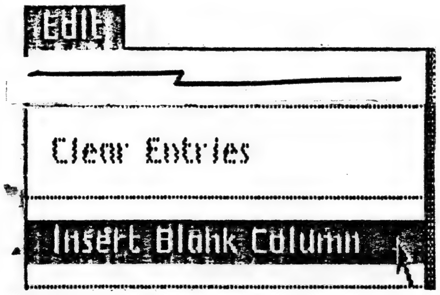
Inserting Columns and Rows

- For the graph to compare income, purchases, and spending at quarterly intervals over a four year period, column A must contain dates. To insert a column of dates,

➤ Select the grid handle between the edge of the table and column A; read the the cell coordinates area of the status panel to confirm what you have selected.



➤ Choose Insert Blank Column from the Edit menu.

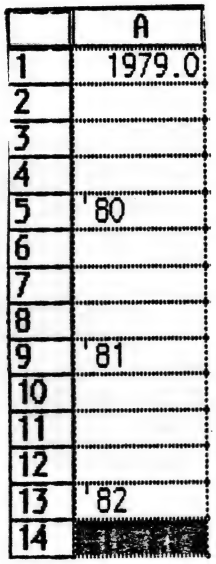


When the blank column is inserted, all other columns are automatically reordered and moved to the right, and the blank column becomes column A. To enter dates that will plot at quarterly intervals,

➤ Select cell A1 and type

```
1979 [RETURN]
[RETURN]
[RETURN]
[RETURN]
'80 [RETURN]
[RETURN]
[RETURN]
[RETURN]
'81 [RETURN]
[RETURN]
[RETURN]
[RETURN]
'82 [RETURN]
```

Your table should look like Figure C3-9.

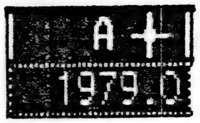


	A
1	1979.0
2	
3	
4	
5	'80
6	
7	
8	
9	'81
10	
11	
12	
13	'82
14	

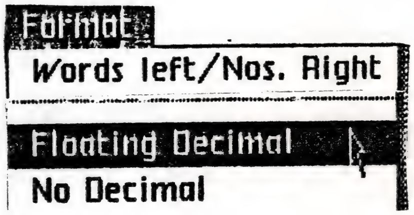
Figure C3-9. Column of Dates Added

Look at the format of the cells of column A. Notice that cell A1 displays the year 1979 on the right side of the cell as 1979.0. The dates '80, '81, '82 are placed on the left side of the cell because they contain text, a single quote. The format of column A is incorrect for the data it contains.

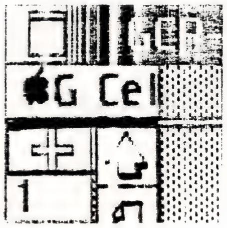
- ➤ Position the pointer in column A's header and click the mouse button to select it.



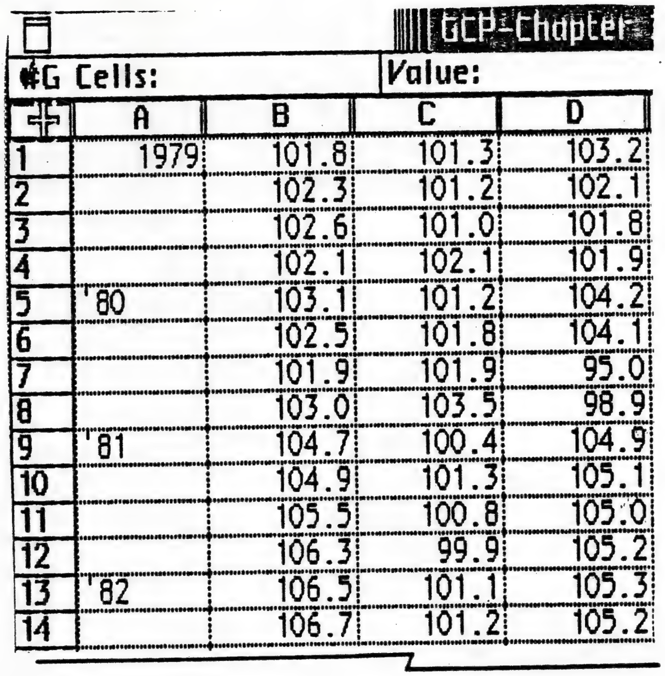
- ➤ Choose Floating Decimal from the Format menu.



- ➤ Select the unlabeled box above row 1.



Column A should look Figure C3-10.

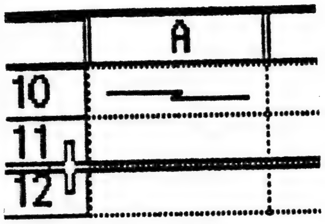


	A	B	C	D
1	1979	101.8	101.3	103.2
2		102.3	101.2	102.1
3		102.6	101.0	101.8
4		102.1	102.1	101.9
5	'80	103.1	101.2	104.2
6		102.5	101.8	104.1
7		101.9	101.9	95.0
8		103.0	103.5	98.9
9	'81	104.7	100.4	104.9
10		104.9	101.3	105.1
11		105.5	100.8	105.0
12		106.3	99.9	105.2
13	'82	106.5	101.1	105.3
14		106.7	101.2	105.2

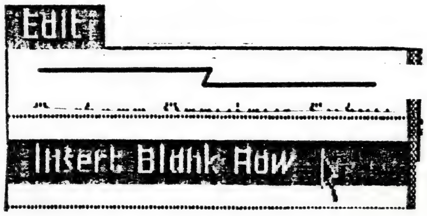
Figure C3-10. Column A with Unformatted Numbers

Two rows of data are missing from the table: figures for the last quarter of 1981 and the first quarter of 1982. To add this data,

➤ Select the handle between row 11 and 12; then confirm what is selected in the status panel.

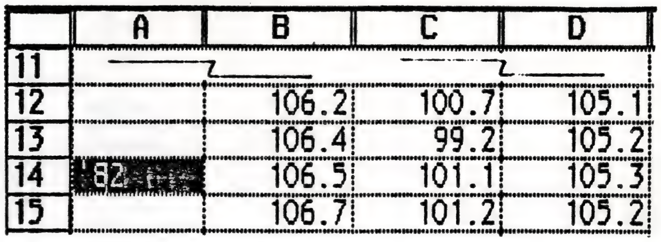


➤ Choose Insert Blank Row from the Edit menu; then choose it again to insert two blank rows in the table.



➤ Select cell B12 and type

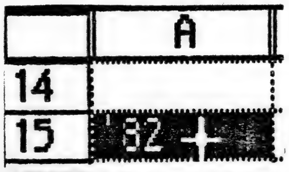
106.2 [TAB]
100.7 [TAB]
105.1 [RETURN]
[TAB] 106.4 [TAB]
99.2 [TAB]
106.2 [RETURN]



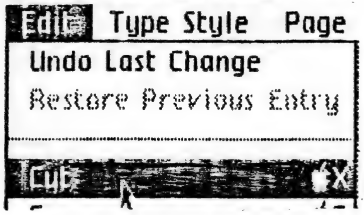
	A	B	C	D
11				
12		106.2	100.7	105.1
13		106.4	99.2	105.2
14	'82	106.5	101.1	105.3
15		106.7	101.2	105.2

The addition of the rows has invalidated the placement of the year '82. To move '82 from cell A15 to cell A13

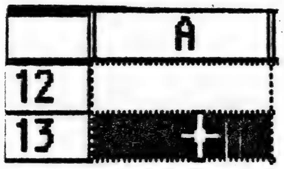
➤ Select cell A15.



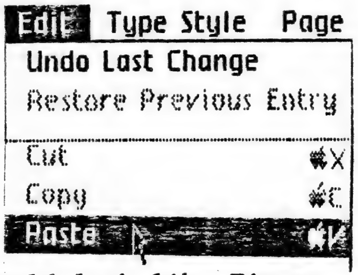
➤ Choose Cut from the Edit menu.



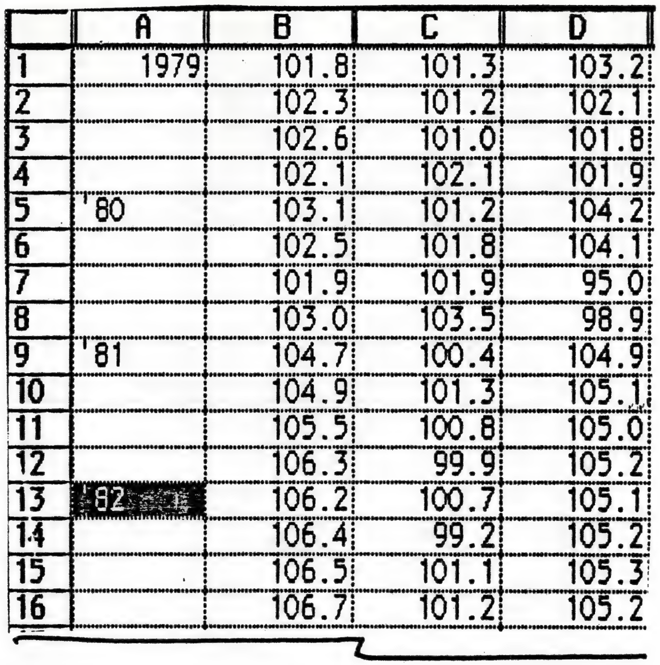
➤ Select cell A13.



➤ Choose Paste from the Edit menu.

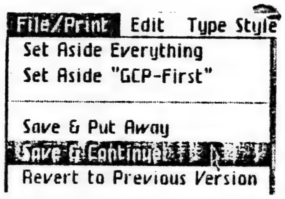


The table is complete. It should look like Figure C3-11.



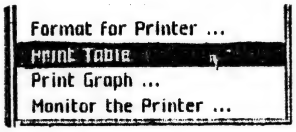
	A	B	C	D
1	1979	101.8	101.3	103.2
2		102.3	101.2	102.1
3		102.6	101.0	101.8
4		102.1	102.1	101.9
5	'80	103.1	101.2	104.2
6		102.5	101.8	104.1
7		101.9	101.9	95.0
8		103.0	103.5	98.9
9	'81	104.7	100.4	104.9
10		104.9	101.3	105.1
11		105.5	100.8	105.0
12		106.3	99.9	105.2
13	'82	106.2	100.7	105.1
14		106.4	99.2	105.2
15		106.5	101.1	105.3
16		106.7	101.2	105.2

Figure C3-11. Completed Table



- ➤ Choose Save & Continue from the File/Print menu.

To print two copies of the table



- ➤ Choose Print Table from the File/Print menu.

- ➤ When the dialog box appears, check 2 in the copies box.

- ➤ Click Ok.

FINISHING THE GRAPH

Now that you have completed work on the table, you can finish the graph and print it for presentation. For instance, you need to change the graph's format and expand its Y-axis range. Begin by opening the graph view and scrolling the legends into view.

➤ Move the width control to the left, into the table's row numbers

Your graph should look like the one in Figure C3-12.

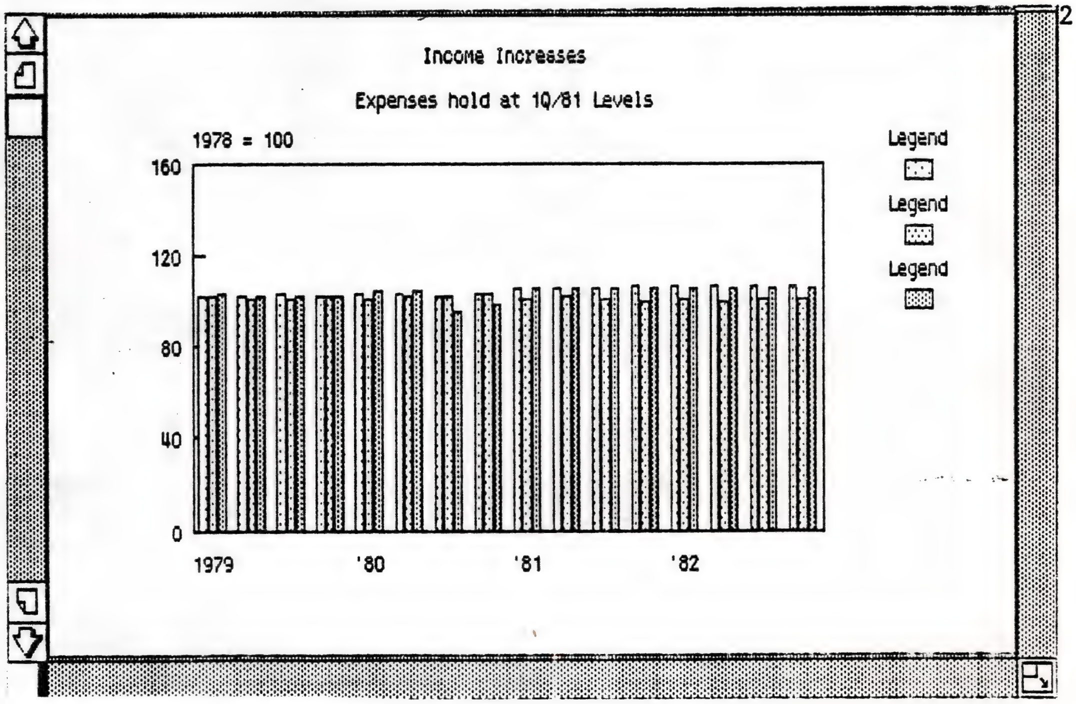
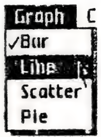


Figure C3-12. Graph

Notice that the X-axis labels are actually the values from column A. Notice how even the bars are; it's not a very interesting looking graph. To show a trend, the way this graph should, you need a line graph. To change the bar graph to a line graph

➤ Choose Line from the Graph menu.



Your graph should look like the one in Figure C3-13.

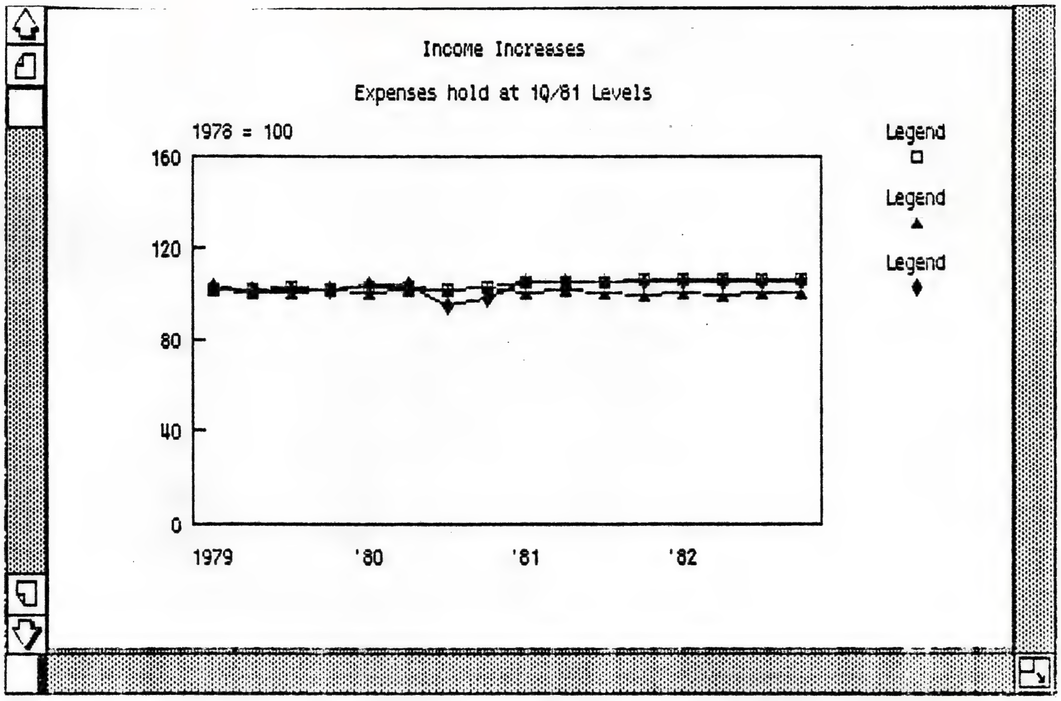
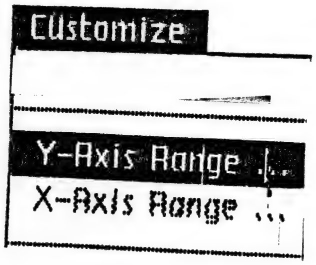


Figure C3-13. Data Plotted as a Line Graph

Notice how flat the graph looks. LisaGraph calculates a range of Y-axis labels that includes all numbers in columns B through I. In this case, the automatic Y-axis range exceeds the values in the table by quite a bit which puts a lot of space between the graph border and the data plotted.

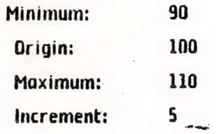
Notice the Y-axis title, "1978 = 100"; this should be the point of the Y-axis origin. To correct the Y-axis range

➤ Choose Y-Axis range from the Customize menu.



➤ When the dialog box appears showing the current range, type

90 [RETURN]
100 [RETURN]
110 [RETURN]
5



Minimum: 90
Origin: 100
Maximum: 110
Increment: 5

➤ Click OK.

The Y-axis range is recalculated using the new specifications. Your graph should look like Figure C3-14.

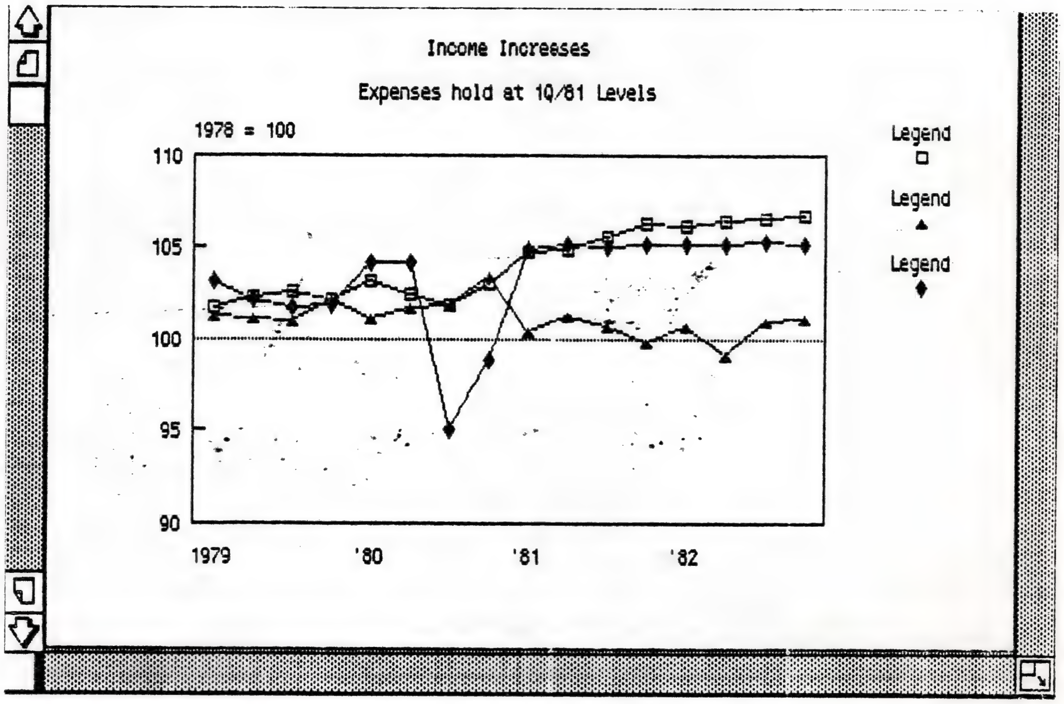
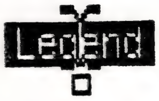


Figure C3-14. New Y-Axis Range

Three sets of data are plotted on the graph: income, capital expenses, and total spending at quarterly intervals. To change the graph's legends to reflect this information,

➤ Position the pointer in the first legend on the graph, click the mouse button three times, then type



Income

- Replace the second legend with the words "Capital Expenses" and the third legend with the words "Total Spending."

When you finish editing the legends on your graph, it should look like Figure C3-15.

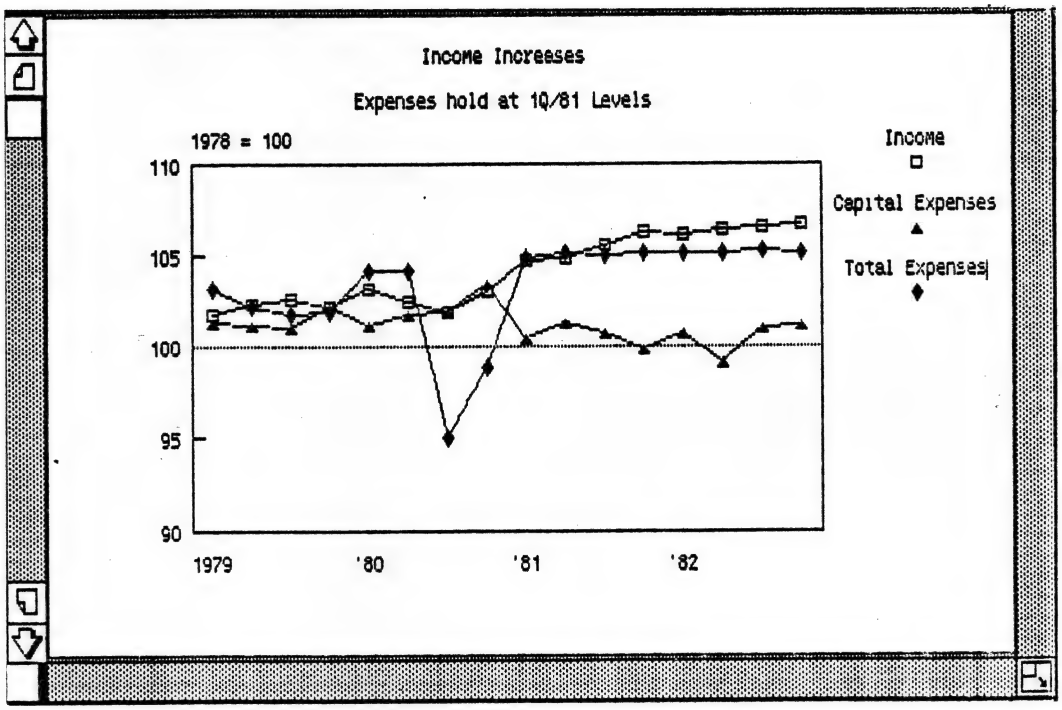
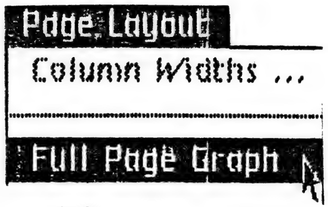


Figure C3-15. Legends

- Move the graph's horizontal elevator to the left, so that you can view the Y-axis labels.

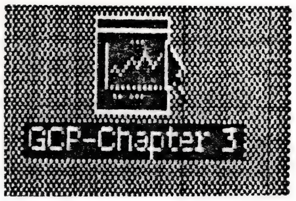
- Choose Full Page Graph from the Page Layout menu.



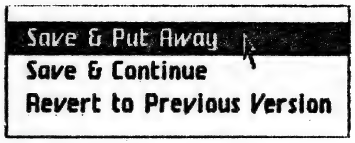
- Print a copy of the graph if you like.

- Put the document away.

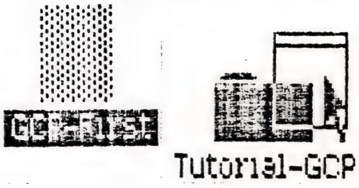
- ➤ Move the document's icon to the desktop to prepare to move it into your personal folder.



- ➤ Move the pointer in the LisaGraph Examples folder and click the mouse button.
- ➤ Choose Save and Put Away Lisa Graph Examples form the File/Print menu.



- ➤ Move the document's icon into your personal folder.



- ➤ Close the LisaGraph window.

CHAPTER SUMMARY

Change table's printing font	• Choose a font name from the Type Style menu.
Change the table's display type size	• Choose a display size from the Type Style menu.
Format cells	• Select the cells. • Choose a cell format from the Format menu.
Edit status panel to locate a particular cell or range of cells	• Select cell coordinates in status panel. • Type new coordinates.
Cut data from a cell	• Select the cell. • Select the data to be cut. • Choose Cut from the Edit menu.
Replace data in a cell	• Select the cell. • Select the data to be replaced. • Type new data.
Insert data in a cell	• Select the cell. • Set the insertion point before the text that will follow the new text. • Type new data.

Move rows or columns	• Select the rows or columns to be moved. • Choose Cut from the Edit menu. • Select boundary between rows or columns. • Choose Paste from the Edit menu.
Move data to another cell	• Select the cell with data to be moved. • Choose Cut from the Edit menu. • Select recipient cell. • Choose Paste from the Edit menu.
Change the width of a single column	• Select the column. • Move the columns right boundary to the right or left; then release the mouse button.
Change the width of several columns	• Select the columns. • Choose Change Column Widths from the Page Layout menu. • Type a number in the dialog box. • Choose OK in the dialog box.
Insert a column	• Select the grid handle of the column that will preceed the new column. • Choose Insert Blank Column from the Edit menu.

Insert a row	• Select the grid handle of the row that will preceed the new row. • Choose Insert Blank Row from the Edit menu.

Chapter 4

LisaGraph and Other Tools

CHAPTER 4. LISAGRAPH AND OTHER TOOLS

LisaGraph can be used with LisaCalc and LisaDraw. The activities in this chapter show you how to

- Copy data in a LisaCalc worksheet.
- Paste the copy into a LisaGraph table.
- Finish the graph.

In order to complete the activities in this chapter you will need both LisaGraph and LisaCalc. To learn how to enhance a graph with drawings or other art, see Section C in the LisaDraw manual, LisaDraw Tutorial, Chapter 5.

LISAGRAPH AND LISACALC

You can copy data from LisaCalc into LisaGraph to ge plotted in the graph format of your choice. Several things happen in the process.

1. A copy of the selected cells is placed on the Clipboard.

2. LisaGraph removes any formulae from the copy when you paste it into a LisaGraph table; a formula cannot be plotted.

3. LisaGraph automatically plots the resulting data in the graph form of your choice.

COPYING DATA FROM LISACALC TO LISAGRAPH

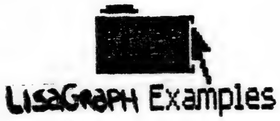
In the guided activities that follow, you will copy data from a LisaCalc spreadsheet and paste a copy of it into a LisaGraph table. Then, you will edit the graph's titles and legends and customize the graph.

To prepare for the activities

➤ Insert a duplicate Startup diskette into the top disk drive and a duplicate LisaCalc diskette into the bottom disk drive; then turn your Lisa on.

➤ Open the ProFile window.

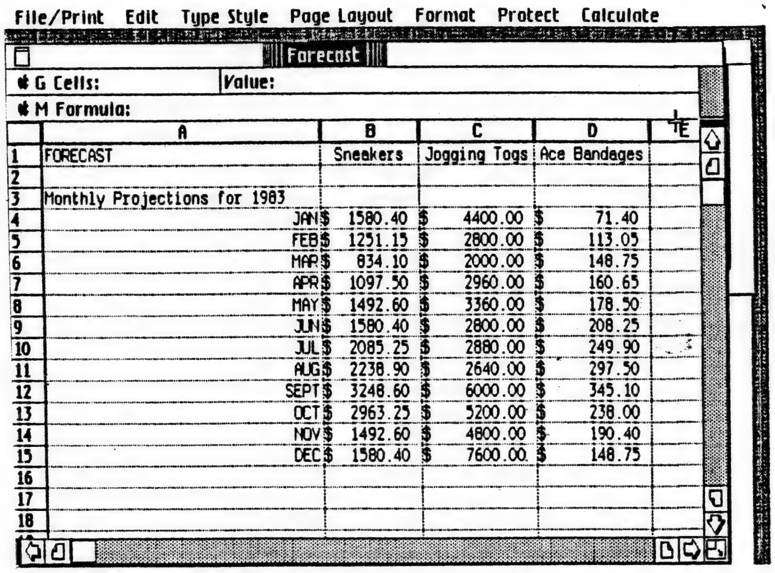
➤ Open the LisaGraph Examples folder.



➤ Tear a document from the pad named Forecast and name the untitled document "Forecast."

➤ Open the new document's window.

The document should look like the one shown in Figure 4-1. When you intend to copy data from LisaCalc into LisaGraph, it is a very good idea to set up the spread sheet as you would set up a LisaGraph table.



G Cells: Value:

M Formula:

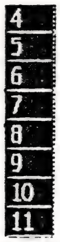
	A	B	C	D	E
1	FORECAST	Sneakers	Jogging Togs	Ace Bandages	
2					
3	Monthly Projections for 1983				
4	JAN	$ 1580.40	$ 4400.00	$ 71.40	
5	FEB	$ 1251.15	$ 2800.00	$ 113.05	
6	MAR	$ 834.10	$ 2000.00	$ 148.75	
7	APR	$ 1097.50	$ 2960.00	$ 160.65	
8	MAY	$ 1492.60	$ 3360.00	$ 178.50	
9	JUN	$ 1580.40	$ 2800.00	$ 208.25	
10	JUL	$ 2085.25	$ 2880.00	$ 249.90	
11	AUG	$ 2238.90	$ 2640.00	$ 297.50	
12	SEPT	$ 3248.60	$ 6000.00	$ 345.10	
13	OCT	$ 2963.25	$ 5200.00	$ 238.00	
14	NOV	$ 1492.60	$ 4800.00	$ 190.40	
15	DEC	$ 1580.40	$ 7600.00	$ 148.75	
16					
17					
18					

Figure C4-1. LisaCalc Forecast

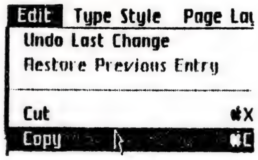
This particular spread sheet was prepared specifically for use with LisaGraph. Notice that column A contains dates, the X-axis data; columns B, C, and D contain projected sales figures for the year, the Y-axis data.

You need to copy only the data that you intend to graph: the dates and the sales figures. To copy the data,

➤ Select rows 4 through 15 in the spread sheet.

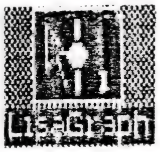


➤ Choose Copy from the Edit menu.

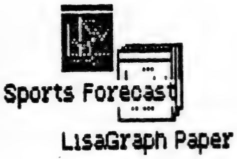


Now, prepare your desktop for the paste operation.

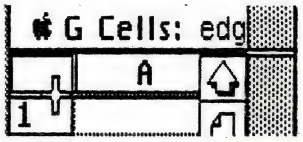
➤ Insert a duplicate LisaGraph diskette into the bottom disk drive; then open the LisaGraph disk window when it appears.



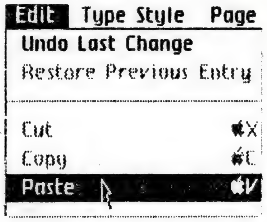
➤ Tear a document from the LisaGraph stationery pad and type the name Sports Forecast; then open the document.



➤ Select the boundary between the edge of the table and row 1.



➤ Choose Paste from the Edit menu.



Your LisaGraph document should look like Figure C4-2.

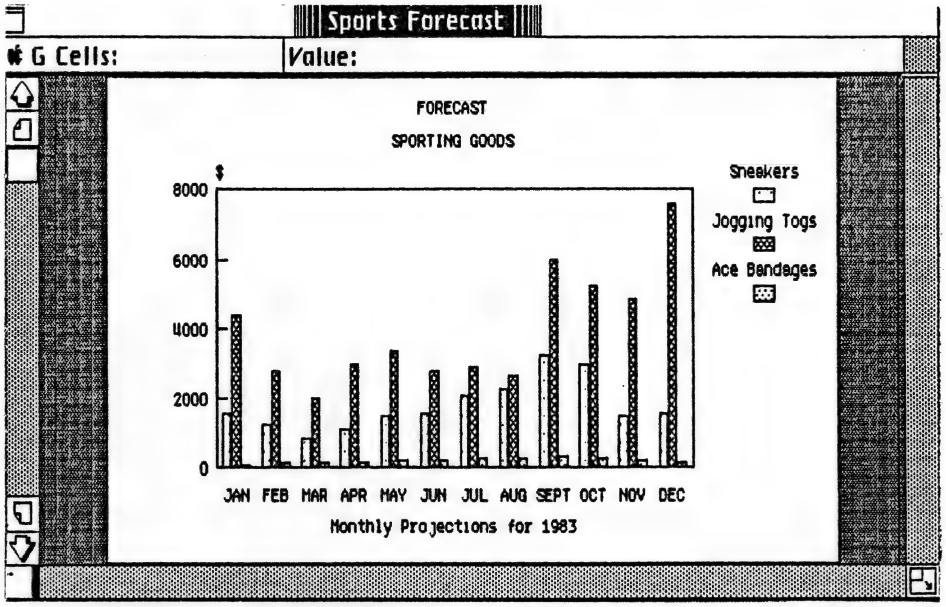
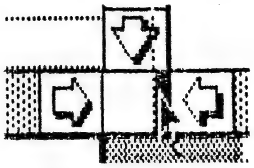


Figure C4-2. LisaGraph Document

➤ Move the width control into the table's row numbers.



To complete the graph you need to make some changes.

➤ Edit your graph so it looks like the one in Figure C4-3.

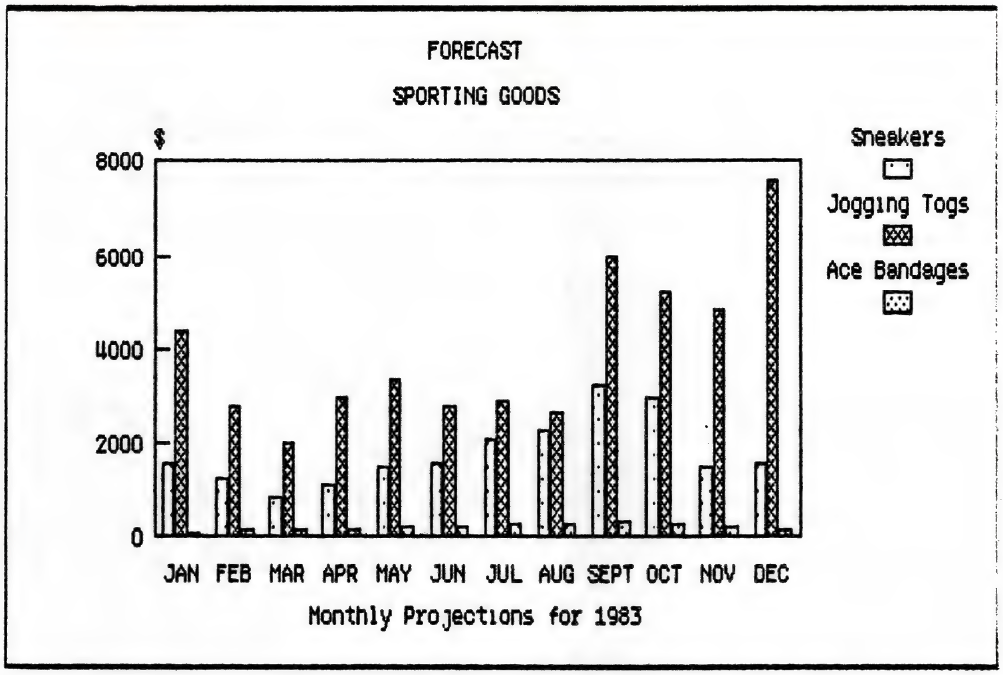
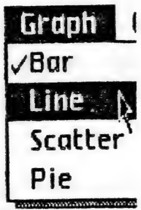


Figure C4-3. Edited Graph

A line graph best suits an item comparison. To change the bar graph to a line graph,

➤ Choose Line from the Customize menu.



Your graph should look like the one in Figure C4-4.

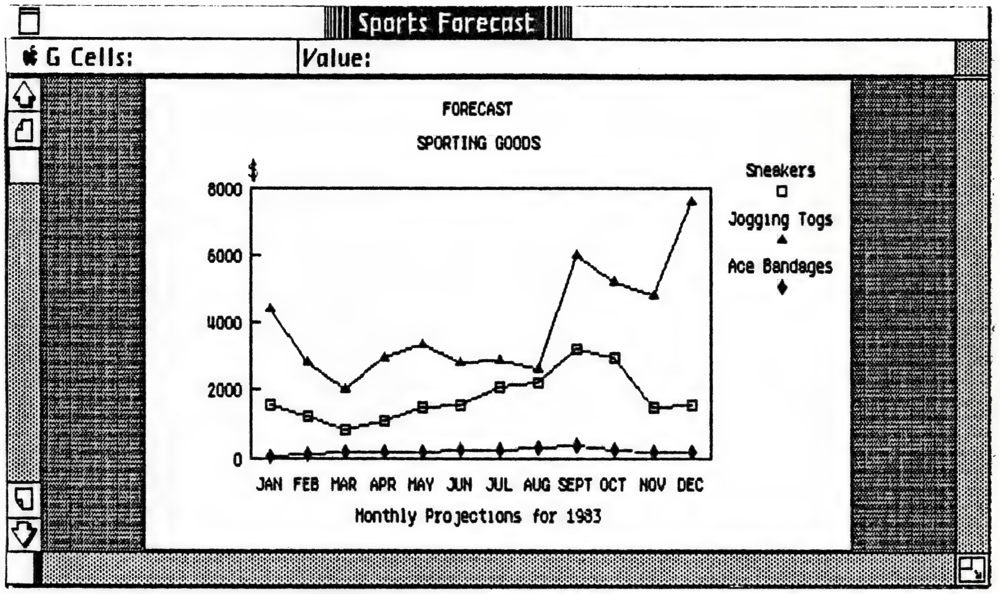


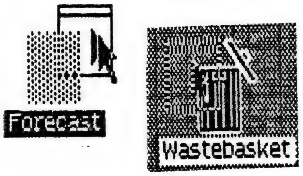
Figure C4-4. Edited Graph

➤ Print the graph if you like.

➤ Put the document away; then file it in your personal folder.

Since you no longer need the LisaCalc document named Forecast, you can discard it. To do this,

➤ Move the icon named Forecast into the Wastebasket.



LISAGRAPH AND LISADRAW

You can copy the entire graph and move it into LisaDraw. Using LisaDraw, you can enhance a graph by adding shaded shapes, arrows, or anything else that adds excitement. See Section C in the LisaDraw manual, LisaDraw Tutorial, Chapter 5 for details.

CHAPTER SUMMARY

Copy data from LisaCalc to LisaGraph	• Get the LisaCalc spread. • Select the cells to be copied. • Choose Copy from the Edit menu. • Put the LisaCalc document away. • Tear off a sheet of LisaGraph stationery. • Name the graph. • Select the first row in the LisaGraph table. • Choose Paste from the Edit menu. • Choose Save & Continue from the File/Print menu. • Add titles and legends. • Customize the Graph. • Format the table [optional] • Save. • Print. • Put the graph away. • File the graph in a folder.

D

LisaGraph
Reference Guide

Section D

LisaGraph Reference Guide

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WHAT'S IN THE LISAGRAPH REFERENCE GUIDE?

This LisaGraph Reference Guide contains complete information about LisaGraph and is divided into two parts. Chapter 1 briefly explains basic LisaGraph concepts. Read Chapter 1 for an overview of LisaGraph and how to use it. Chapter 2 is divided into categories. Within each category there are procedures for accomplishing specific tasks and some examples. Use Chapter 2 for step-by-step instructions on how to complete a particular task within LisaGraph.

You can look for specific topics in the Index, in the table of contents of this Reference Guide, or at the beginning of each category of Chapter 2 of this Reference Guide.

The information in the LisaGraph Reference Guide is based on the assumption that you have completed LisaGuide, for an introduction to Lisa, and Section A, Getting Started with LisaGraph, for a quick introduction to the basic skills needed to use LisaGraph. For more self-paced instructions on LisaGraph, you can use the LisaGraph Tutorial, Section C.

Chapter 1

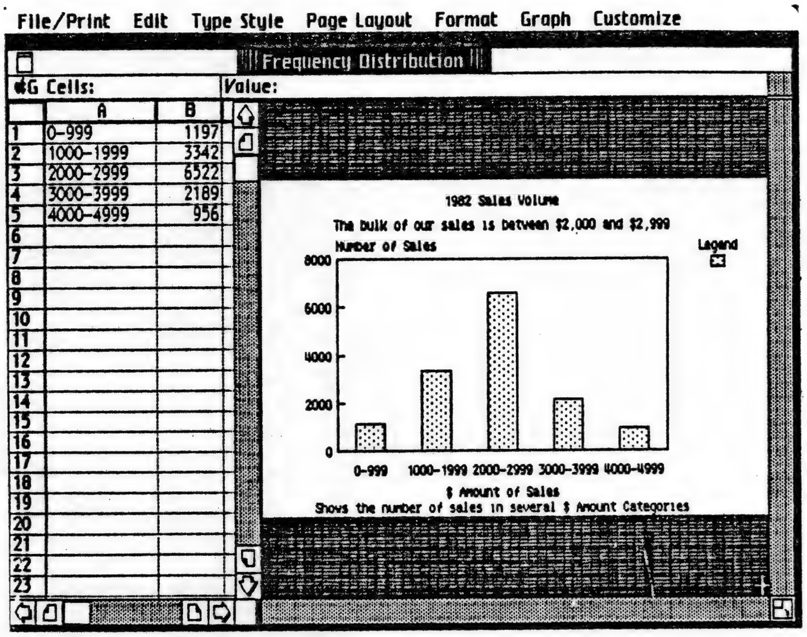
Overview

WHAT'S IN CHAPTER 1?

Chapter 1 covers the basic concepts and terminology for LisaGraph. It introduces you to the LisaGraph screen, elements of a LisaGraph document, selecting, scrolling, menus, dialog boxes, alert boxes, and the LisaGraph workflow.

THE LISAGRAPH SCREEN

A LisaGraph document window is divided into two parts: the graph and the table. When you work with a LisaGraph document, the screen typically looks like Figure D1-1.



	A	B
1	0-999	1197
2	1000-1999	3342
3	2000-2999	6522
4	3000-3999	2189
5	4000-4999	956
6		
7		
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Figure D1-1. Typical LisaGraph Screen

Following are brief descriptions of what you see in Figure D1-1.

Icon	Represents a closed window, such as a document or disk window.
Window	Displays the contents of an open icon, such as the content of a document or a disk.

Graph View	Displays the graph.
Table View	Displays the table.
Menu bar	Displays the names of all available LisaGraph menus.
Menu title	The name of a menu of related options.
Menu item	Command that affects whatever is selected.

Graph View

Graphs are displayed on the right side of the document window, as shown in Figure D1-2. It is possible to widen the graph view so it fills the document window.

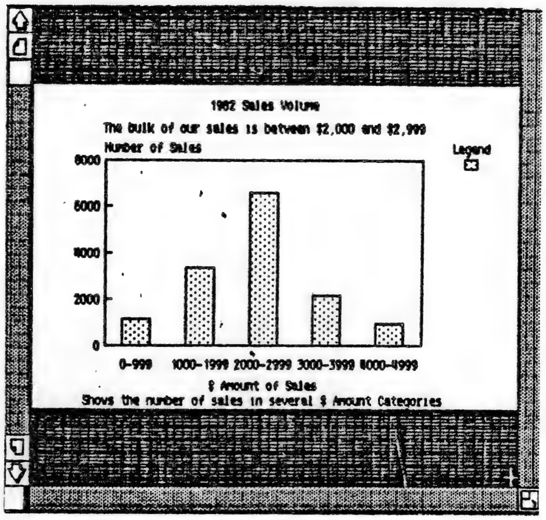


Figure D1-2. Graph View

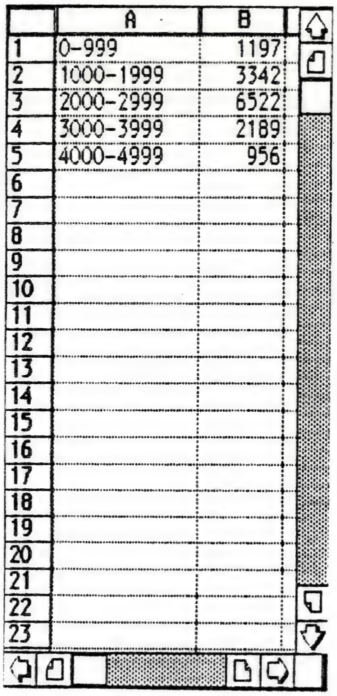
Following are brief descriptions of what you see in Figure D1-2.

Width control	Controls the width of the graph view.
Graph title	Text that describes the comparison shown on the graph.

Subtitle	Text that further clarifies the comparison shown.
Legend	Text that identifies what the various patterns on a graph represent.
Graph frame	Border around the graph.
Y-axis scale	Range of values along the vertical axis of a graph's two dimensional coordinate system. LisaGraph automatically computes and labels the Y-axis scale.
Y-axis title	Text that identifies Y-axis information, which is taken from columns B through I of the table.
X-axis scale	Range of values along the horizontal axis of a graph's two dimensional coordinate system. LisaGraph automatically labels the graph's X-axis scale.
X-axis title	Text that identifies the X-axis information, which is taken from column A of the table.
Footnote	Text that further explains the data on the graph.

Table View

Tables are displayed on the left side of the document window, as shown in Figure D1-3. It is possible to widen the table's view so that it fills the document window.



	A	B
1	0-999	1197
2	1000-1999	3342
3	2000-2999	6522
4	3000-3999	2189
5	4000-4999	956
6		
7		
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Figure D1-3. Table View

Figure D1-3 also shows the status panel that displays information about the table and how LisaGraph uses uses it, see "LisaGraph Concepts."

Following are brief descriptions of what you see in Figure D1-3.

Width control	Moveable bar that controls the width of the table and graph views.
Cell	A box at the intersection of a row and a column that contains a single value, such as a date.
Column	Cells arranged vertically. Each column contains one set of information; for instance, in Figure D1-3, column A contains dates and column B contains profit figures. Data in column A are X-axis data. Data in columns B through I are Y-axis data. Data in other columns are ignored.

Row	Cells arranged horizontally. Each row contains different sets of information; for instance, in Figure D1-3, row 1 contains dates, X-axis data in cell A1, profit figures, Y-axis data in cell B1, and projected profit figures, Y-axis data in cell C1.
Value	Text in a cell, including letters, numbers, symbols, punctuation and spaces that you enter by pressing the [Space Bar].
Status Panel	Shows information about the selection in the table. It contains a "cells" area and a "values" area.
Cell Area	Shows which cell or cells are selected.
Value area	Shows the contents of the selected cell and the kind of value it contains: number, text, or date.

LISAGRAPH CONCEPTS

With LisaGraph you can make bar graphs, line graphs, scattergrams, and pie charts. A graph is a single page drawing that displays numerical relationships using a two dimensional coordinate system. As you enter values in the table, LisaGraph automatically plots the graph.

When plotting bar graphs, line graphs, or scattergrams, LisaGraph uses the values in the table as follows.

- Values in column A are X-axis data (horizontal scale), such as time periods or categories.

- Values in columns B through I are Y-axis data (vertical scale), such as profit or loss figures.

- LisaGraph pairs all X-axis values in column A with all corresponding Y-axis values in columns B through I of the table and plots the intersections of data points. Each set of data appears in a different pattern on the graph.

For instance, data pairs from columns A and B are plotted in one pattern, data pairs from columns A and C are plotted in another pattern, and so on until the graph is finished.

When plotting pie charts, LisaGraph uses only values in columns A and B of the table.

- Values in column B are totaled.
- Each value in column B is plotted as a pie segment that represents its share of the total.
- Values in column A become pie segment labels.

To edit the contents of a cell or to edit text on a graph, you select the portion that you want to change and then you replace, insert, cut, copy, or move it. To format a cell or change the style of the graph or text on it, you select the portion to be changed and then you choose a cell format or a type style or graph format from a menu. The graph is redrawn whenever you choose a new format for it or when you edit the table.

Pointers

As you move the mouse, the pointer moves around the screen and assumes different shapes as you move from one area to another. LisaGraph has the following pointer shapes.

I	The text pointer appears whenever you can select text on a graph or in a cell.
✛	The hollow cross-hair pointer appears in the table to show when you can select cells.
↖	The arrow appears outside a table or graph to show when you can select icons, scroll controls, and menu items. It always points up and to the left.
✓	The check pointer is used to make choices within some dialog boxes or the preferences window.

The hour glass appears when you need to wait while Lisa finishes what it is doing.

Selecting

Table 1-1 explains how select the elements of a graph and a table that you can edit and format. Whatever you have selected is referred to as the "selection."

The selection is highlighted on the screen to show you what will be changed; its highlighting doesn't print. If a selection doesn't include everything you wanted, you can always select again to correct it.

Table 1-1. Selecting in LisaGraph

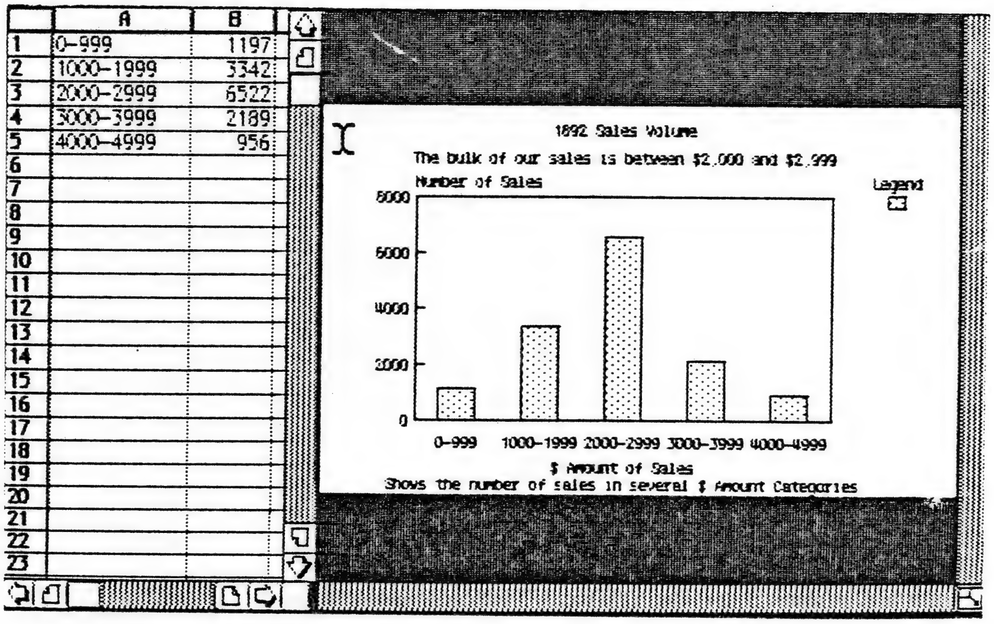
To Select	Do the Following
One cell, one column, or one row	• Move the pointer into the cell, column header, or row header and click the mouse button.
Several cells, columns or rows	• Move the pointer into the first cell, column header, or row header. • Press the mouse button and hold it down while moving the pointer into the last cell, column header or row header; then release the mouse button.
Between two columns or between two rows	• Position the pointer on the grid handle between two columns or rows and click the mouse button.

Insertion point on a graph	• Move the pointer to the desired location and click the mouse button. The insertion point is a blinking vertical bar that shows where the next typed character will go; the pointer vanishes until you move the mouse.
Insertion point within a cell	• Move the pointer into the cell and click the mouse button twice: once to select the cell and once to set the insertion point.
One or more Characters	• Move the pointer to the left of the first character. • Press and hold down the mouse button. • Move the pointer directly through to the last character and release the mouse button. To select one or more characters in a cell, select the cell first.
One word	• Move the pointer into the word and click the mouse button twice.
One line of text	• Move the pointer into the line and click the mouse button three times.
Several words	• Move the pointer into the first word. • Press the mouse button; then press it again and hold it down. • Move the pointer into the last word and release the mouse button.

Whole graph or whole table	• Choose Select All of Graph or Select All of Table from the Edit menu.
Extend a selection	• Move the pointer into the end of the new selection. • Press and hold down the SHIFT] key and click the mouse button.
Deselect, to select nothing in the document	• Move the pointer to the unlabeled box in the upper-left corner of the table and click the mouse button.

Scrolling

When you can't see all the data in the table or the entire graph, use the view controls to scroll hidden portions of the document into view. Figure D1-4 shows LisaGraph's view controls.



	A	B
1	0-999	1197
2	1000-1999	3342
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5	4000-4999	956
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Figure D1-4. Window with View Controls

The following brief descriptions explain the purpose of the controls shown in Figure D1-4.

Scroll bars	Contain controls that scroll hidden portions of a graph or table into view.
Scroll Arrows	Bring hidden portions of a graph or table into view slowly: line-by-line, row-by-row, or column-by-column.
Elevators	Move within the scroll bar to indicate where the current view is in relation to the rest of the table or graph. You can move it to quickly scroll to any spot in the document.
View Buttons	Scroll the next or previous view-full into sight.
Width Control	Controls the width of the table and graph views.

Table 1-2 explains the different ways to scroll in LisaGraph.

Table 1-2. Scrolling in LisaGraph

To Scroll	Do the following
Line by line <or row by row> <or column by column>	• Move the pointer into a scroll arrow and click the mouse button once for each line, row, or column.
Continuous lines <or rows or columns>	• With the pointer in a scroll arrow, press the mouse button and hold it down until you can see what you want.
View-sized increments	• Move the pointer into a view button and click the mouse button once for each view.

Continuous view-sized increments	• With the pointer in a view button, press the mouse button and hold it down until you can see what you want.
Large jumps	• Move the pointer into an elevator and hold down the mouse button while moving the elevator. • Release the mouse button when the elevator is in the correct position relative to the beginning and end of its scroll bars and, therefore, the document. For example, move the elevator to the top of the scroll bar to view the beginning of the table, or to the bottom of the bar to view the end of the table. In this case, the view does not change until you release the mouse button.

The width control, located at the bottom of the scroll bar between the table and graph, determines the size of the table and graph views. Table 1-3 shows how to widen a view of the table or a view of the graph.

Table 1-3. Expanding a View in LisaGraph

To widen a view	• Move the pointer into the width control, press and hold down the mouse button while moving the control and flickering boundary to the right or left. • Release the mouse button when the outline shows the desired width.

About Menus

LisaGraph's editing, formatting, printing, and filing operations are listed on menus. The menu bar at the top of the screen shows the names of the available menus. Figure D1-5 shows the menu bar with the names of LisaGraph menus. A description of all LisaGraph menu items can be found in Appendix 2 of this manual.

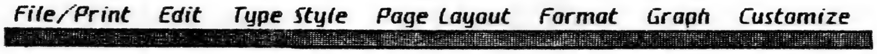
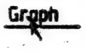


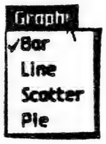
Figure D1-5. LisaGraph Menu Bar

To choose a menu item

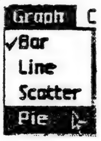
➤ Move the pointer to the menu bar and position it over the name of the menu you want to open.



➤ Press the mouse button and hold it down. Notice that the menu is now showing.



➤ Move the pointer into the menu item you want. Notice that the item is highlighted.



➤ Release the mouse button.

Some menu items are accompanied by an Apple symbol and a letter of the alphabet. This means that you can hold down the Apple key and the letter to choose a menu item rather than choosing the item with the mouse. Refer to Appendix 3 in this manual for a list of the menu items that you can choose using the Apple key.

Some menu items are followed by an ellipses (...). When you choose one of these menu items, a dialog box appears requesting additional information that is required before the operation can be completed. Dialog boxes are explained in the following section.

When a menu item is shown in gray instead of black, it cannot be chosen at that time. This is usually because it does not apply to the current selection.

Some menu items are grouped together and represent the available choices for a particular menu setting. The current setting has a check mark next to it, while the others don't. If you choose another setting in the group, the current one automatically turns off.

For example, the Page Layout menu is divided into three sections: the first shows a column width menu item, the middle section lists sizes for the printed graph, and the bottom section lists screen sizes for the graph. The current printing size is checked; the current screen size is checked.

Dialog Boxes

A dialog box appears beneath the menu bar after you choose a menu item followed by an ellipsis (...). Figure D1-6 shows a LisaGraph dialog box. The current bounds that apply to the operation are described, which you accept or change. Notice that the first value in the box is selected automatically.

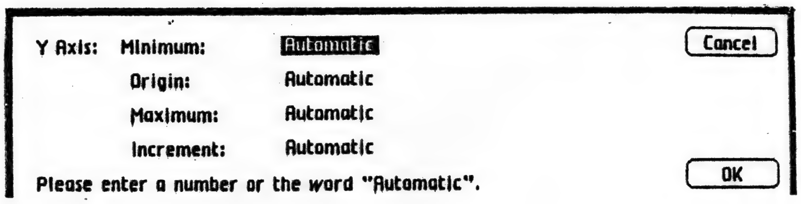

Y Axis: Minimum: Automatic
Origin: Automatic
Maximum: Automatic
Increment: Automatic
Please enter a number or the word "Automatic".

Figure D1-6. Y-Axis Range Dialog Box

To fill in a dialog box,

➤ Position the pointer in the option you want to change, click the mouse button three times to select it, then type the desired parameter. Repeat to change others.

➤ When the dialog box shows the information you want, position the pointer in OK and click the mouse button.

To dismiss the dialog box without changing the document, whether you changed a parameter in the dialog box or not,

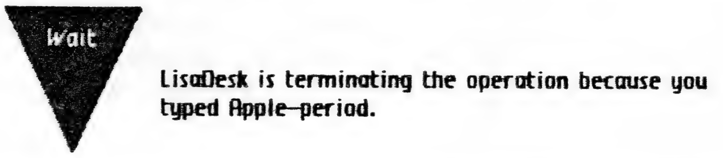
➤ Click the box that reads Cancel.

Alert Boxes

An alert box is a box in which a message from Lisa is displayed. The message can be Wait, Note, Caution, Stop, or ?, as described below. You can usually respond to these messages by clicking the OK or Cancel button. To do this, move the pointer to the OK or Cancel button and click the mouse button.

Wait Message

The Wait message tells you that Lisa is carrying out an operation that can take some time. You don't need to respond to a message. However, some Wait messages give you the option of being able to terminate the operation by holding down the Apple key while typing a period. Figure D1-7 is an example of a Wait message.

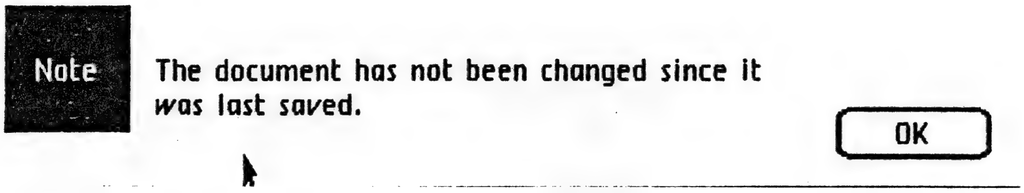


LisaDesk is terminating the operation because you typed Apple-period.

Figure D1-7. Wait Message

Note Message

The Note message tells you that something might need your attention. Most likely, everything is all right, but Lisa wants to tell you about something just in case. To dismiss the alert box with a Note message, you just click OK. Figure D1-8 shows a LisaGraph Note.

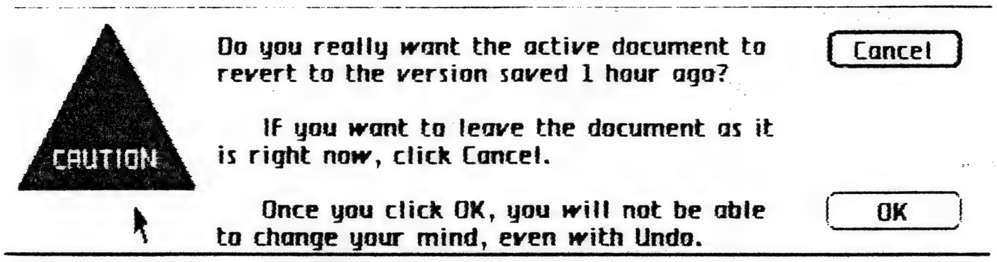


The document has not been changed since it was last saved.

Figure D1-8. LisaGraph Note Message

Caution Message

The Caution message tells you that you are about to do something risky that cannot be undone or something that can take a long time. To dismiss an alert box with a Caution message, you click OK or Cancel. Figure D1-9 shows a Caution message.



Do you really want the active document to revert to the version saved 1 hour ago?

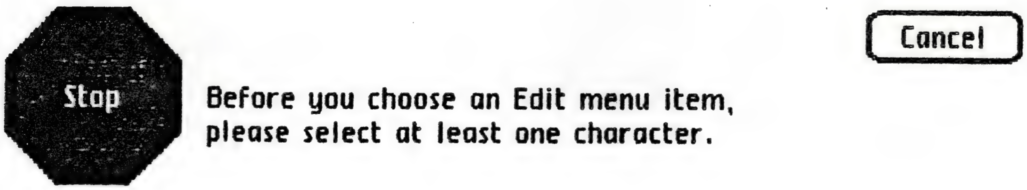
If you want to leave the document as it is right now, click Cancel.

Once you click OK, you will not be able to change your mind, even with Undo.

Figure D1-9. Caution Message

Stop Message

The Stop message tells you that something you requested cannot be done and why. To dismiss the alert box with a Stop message, you click Cancel. Figure D1-10 is an example of a LisaGraph Stop message.

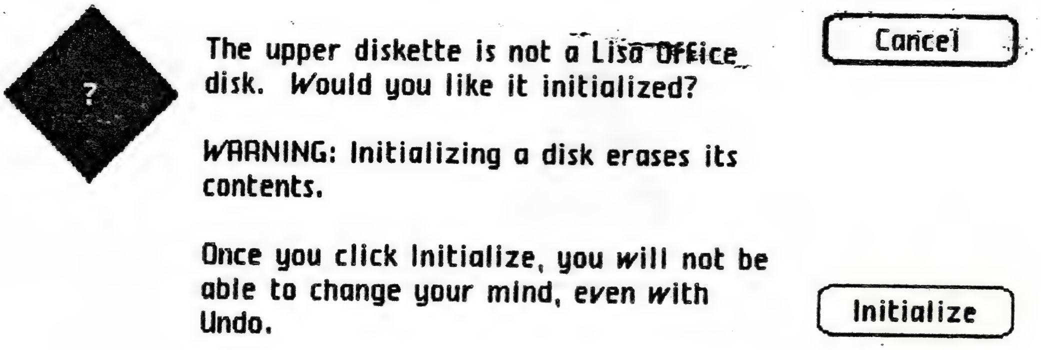


Before you choose an Edit menu item, please select at least one character.

Figure D1-10. LisaGraph Stop Message

? Message

The ? message tells you that you can choose one of a number of alternative actions. Most ? messages have two or three choices. You dismiss the alert box with a ? message by clicking on one of the choices. Figure D1-11 is an example of a ? message.



The upper diskette is not a Lisa Office disk. Would you like it initialized?

WARNING: Initializing a disk erases its contents.

Once you click Initialize, you will not be able to change your mind, even with Undo.

Figure D1-11. ? Message

LISAGRAPH WORKFLOW

The following sections outline how to start Lisa and LisaGraph, how to start a new LisaGraph document, and how to work with an existing document. For specific information and step-by-step instructions refer to Chapter 2 of this Reference Guide and to Section E, Desktop Manager Reference Guide.

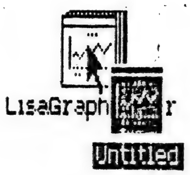
Starting a New Document

To start a new LisaGraph document,

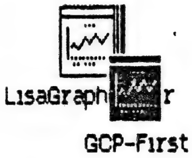
➤ Open the ProFile window.

➤ Open the LisaGraph window.

➤ Tear off a sheet of paper from the LisaGraph stationery pad.

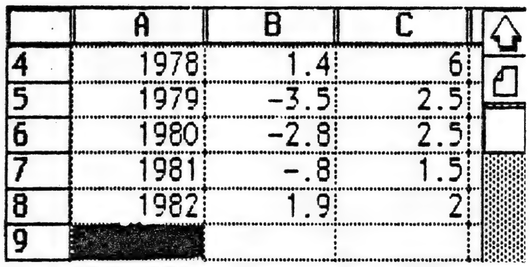


➤ Type the new document's name.

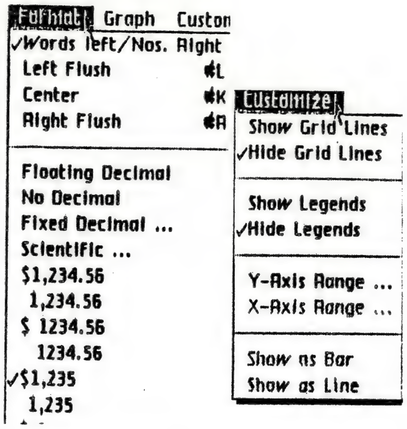


➤ Open the new document's window.

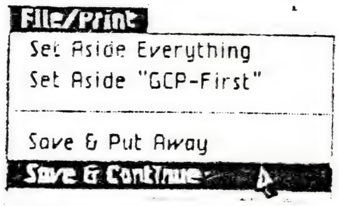
➤ Enter data into the table.



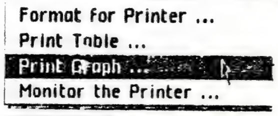
	A	B	C
4	1978	1.4	6
5	1979	-3.5	2.5
6	1980	-2.8	2.5
7	1981	-.8	1.5
8	1982	1.9	2
9			



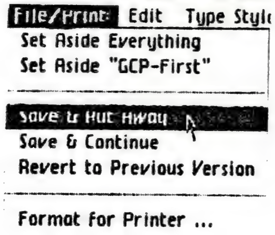
- ➤ Edit data, graph titles, and legends.
- ➤ Format cells, the graph, and text.



- ➤ Save all changes about every fifteen minutes and continue working.

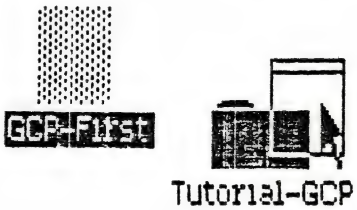


- ➤ Print the table and/or the graph if you like.



- ➤ Put away the completed document.

To organize your documents in a folder and keep the disk window uncluttered, you might want to,



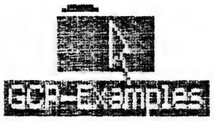
- ➤ Move the saved document into a folder of related documents or tear a new folder from the folder pad, name the folder, and move the document into it.

Working with an Existing Document

To get a filed LisaGraph document to work with,

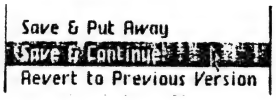
- ➤ Open the ProFile window.

➤ If the document is in a folder, open the folder that contains the document that you want to work with.

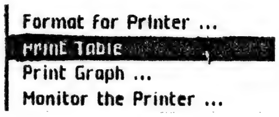


➤ Open the document.

➤ Edit and format the document saving it every fifteen minutes.



➤ Print the table and/or graph, if you like.



➤ Put away the document in its original location.

Finishing Up

When you are finished with your LisaGraph documents,

➤ Put away your LisaGraph documents.

➤ Put away the folders that contain the LisaGraph documents.

➤ Close the disk window.

Chapter 2

Procedures

WHAT'S IN CHAPTER 2?

Chapter 2 contains the procedures for doing everything that can be done in LisaGraph. To make the procedures easier to find, they have been divided into sections according to keywords. The keywords are:

EDIT D2- 5

- Clear Cells
- Copy Cells
- Copy Text
- Cut Cells
- Cut Text
- Enter Value
- Insert Column or Row
- Insert Text
- Move Cells
- Move Text
- Replace Text
- Replace Value
- Undo last Change
- Undo all Changes
- Restore Previous Entry

Look here for operations that change the content of a table or graph.

FORMAT D2-25

- Cell Alignment
- Cell Number Style
- Column Widths
- Graph's Format
- Grid Lines
- Legends
- Line on a Bar Graph
- Graph's Screen Size
- Graph's Type Styles
- Graph's X-Axis Range
- Graph's Y-Axis Range
- Table's Type Styles

Look here for operations that change the appearance of a graph or table.

PRINT D2-51

Look here for print operations.

- Format for Specific Printers
- Print Table
- Change Graph's Printing Size
- Print Graph

OTHER TOOLS D2-65

- LisaGraph and LisaCalc
- LisaGraph and LisaDraw

Look here to learn how use LisaGraph with other tools.

EDIT

Clear Cells	D2- 6
Copy Cells	D2- 7
Copy Text	D2- 9
Cut Cells	D2-11
Cut Text	D2-12
Enter Value	D2-13
Insert a Column or Row	D2-14
Insert Text	D2-15
Move Cells	D2-16
Move Text	D2-18
Replace Text	D2-20
Undo Last Change	D2-21
Restore Previous Entry	D2-22
Revert to Previous Version	D2-23

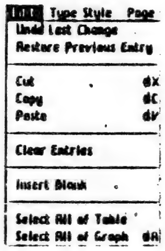
EDIT

Clear Cells

To clear one or more cells

➤ Select the cell or cells to be cleared.

➤ Choose Clear Entries from the Edit menu.



You can clear entries from one or more cells in the table, including columns and rows. When you clear entries, values are removed from selected cells but the cells retain their format.

Cleared entries are not placed on the Clipboard and therefore cannot be pasted. You can immediately choose Undo Last Change from the Edit menu to reverse the clear operation.

EDIT

Copy Cells

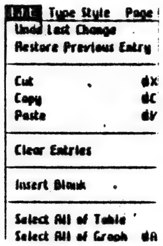
To copy one or more cells and paste the copy into the same table

➤ Select the cell or cells to be copied.

➤ Choose Copy from the Edit menu.

➤ Select the location the cells are to be copied to.

➤ Choose Paste from the Edit menu.



You can copy one or more cells, columns, or rows and paste an exact duplicate into the same table or into another LisaGraph table.

To copy one or more cells into another LisaGraph table

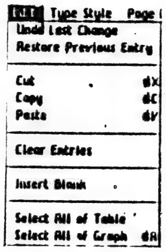
➤ Select the cell or cells to be copied.

➤ Choose Copy from the Edit menu.

➤ Get or activate the other LisaGraph document.

➤ Select the location the cells are to be copied to.

➤ Choose Paste from the Edit menu.

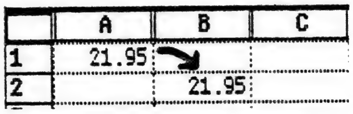


The copied cells remain in the table and an exact duplicate, including values and formats, is put on the Clipboard. When you paste, you are pasting a copy of the cells from the Clipboard; a copy remains on the Clipboard so you can paste again. Note: if you don't select a new area, the paste operation puts the copy over the original.

You may immediately reverse either the copy or paste operation by choosing Undo Last Change from the Edit menu.

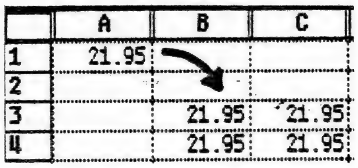
When copying cells, the following combinations are possible.

A single cell can be copied to another cell.



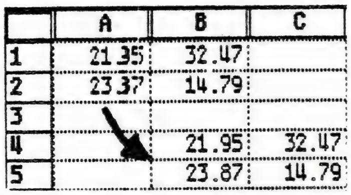
	A	B	C
1	21.95		
2		21.95	

A single cell can be copied to a range of cells. The range can be of any size or shape.



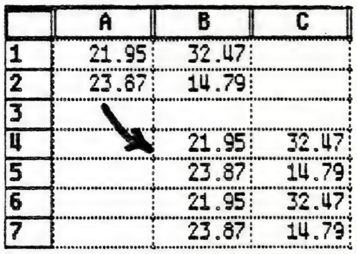
	A	B	C
1	21.95		
2			
3		21.95	21.95
4		21.95	21.95

A range of cells can be copied to another range of cells with the same size and shape.



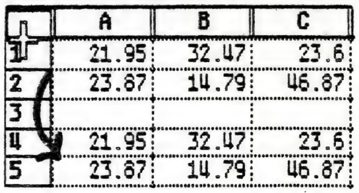
	A	B	C
1	21.95	32.47	
2	23.87	14.79	
3			
4		21.95	32.47
5		23.87	14.79

A range of cells can be copied to a larger range if the new range is an exact multiple of the size and shape of the old range.



	A	B	C
1	21.95	32.47	
2	23.87	14.79	
3			
4		21.95	32.47
5		23.87	14.79
6		21.95	32.47
7		23.87	14.79

A range of cells can be copied to a single cell. In this case, the single cell becomes the upper-left corner of a range the same size and shape as the range that was copied.



	A	B	C
1	21.95	32.47	23.6
2	23.87	14.79	46.87
3			
4	21.95	32.47	23.6
5	23.87	14.79	46.87

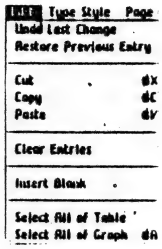
You cannot paste a column into a row or vice versa.

EDIT

Copy Text

To copy text and paste a copy into another spot in the same graph

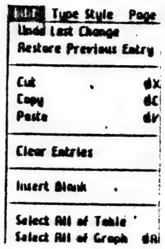
- ➤ Select the text to be copied.
- ➤ Choose Copy from the Edit menu.
- ➤ Set the insertion point or select the text to be replaced
- ➤ Choose Paste from the Edit menu.



You can copy text from a graph, or some of the text in a cell, and paste an exact duplicate into the same graph or into another graph. You can not copy the X- or Y-axis labels that are generated automatically.

To copy text and paste a copy into another graph

- ➤ Select the text to be copied.
- ➤ Choose Copy from the Edit menu.
- ➤ Get or activate the recipient LisaGraph document.
- ➤ Set the insertion point or select the text to be replaced
- ➤ Choose Paste from the Edit menu.



When you copy text on a graph, or part of a cell value, an exact duplicate is put on the Clipboard. When you paste, you are pasting a copy of the text on the Clipboard; a copy remains on the Clipboard so you can paste it again.

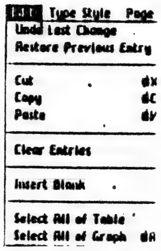
You can immediately reverse either the copy or the paste operation by choosing Undo Last Change from the Edit menu. To copy a cell, see the entry under "Edit, Copy Cells."

EDIT

Cut Cells

To cut one or more cells from a table

- Select the cell or cells to be cut.
- Choose Cut from the Edit menu.



You can cut one or more cells from a table, including columns and rows. When you cut cells, they are removed from the table and placed on the Clipboard; remaining cells are reordered automatically.

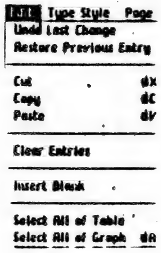
You can immediately reverse the cut operation by choosing Undo Last Change from the Edit menu. In addition, you can paste cut cells into the same table or into another LisaGraph table, see "Edit, Move Cells."

EDIT

Cut Text

To cut text from a graph

- ➤ Select the text to be cut.
- ➤ Choose Cut from the Edit menu.



You can cut text from a graph or cut part of a cell's value. However, you can not cut X- or Y-axis labels that are generated automatically. Cut text is removed from the document and placed on the Clipboard.

When you cut part of a cell's value, the changed value isn't complete until you press the [ENTER] key or select another cell. If an entry isn't complete, it cannot be paired with another and plotted on the graph and the changes cannot be saved and the document cannot be put away.

You can immediately reverse the cut operation by choosing Undo Last Change from the Edit menu. In addition, you can paste cut text into the same graph or into another graph, see "Edit, Move Text".

EDIT

Enter Value

To enter a value in a cell

- ➤ Select the cell.
- ➤ Type the value.
- ➤ Select another cell by using the mouse and pointer or by pressing [TAB] or [RETURN], or press the [ENTER] key.

A cell is either blank or it contains data; data in a cell is called the cell's value. Values are identified in the status panel as either a number, text, or a date. To add data to a cell value, look under "Edit, Insert Text" later in this chapter.

A value isn't complete until you press the [ENTER] key or select another cell. If an entry isn't complete, it cannot be paired with another and plotted on the graph. Also, the changes cannot be saved and the document cannot be put back.

If you select a cell that contains a value and you type, the old value will be replaced with the new one. To replace some of the data in a cell value, see "Edit, Replace Text" later in this chapter.

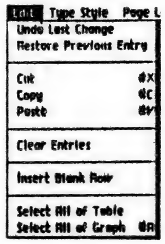
EDIT

Insert a Column or Row

To insert a blank column or blank row in the table

➤ Select the grid handle between the columns or rows that will border the new one.

➤ Choose Insert Blank Column or Insert Blank Row from the Edit menu.



When you insert a blank column or row, any following columns or rows are reordered automatically. You can enter and edit data in the new column or row as usual. To insert several blank rows or columns in the same area, select a grid handle and choose the menu item once for each new one that you want to add.

You can immediately reverse this operation by choosing Undo Last Change from the Edit menu.

Insert Text

To insert text on a graph

➤ Position the pointer where you want to add text and click the mouse button to set the insertion point.

➤ Type.

You can add text to a graph or to a cell's value. You can not add text to the X- or Y-axis labels that are generated automatically.

To insert text into a cell value

➤ Select the cell.

➤ Position the pointer where you want to add text and click the mouse button to set the insertion point.

➤ Type.

➤ Select another cell by using the mouse and pointer or by pressing [TAB] or [RETURN], or press the [ENTER] key.

The blinking vertical bar, called the insertion point, shows where the next typed character will go. While the insertion point is visible the pointer is invisible. The pointer reappears when you move the mouse.

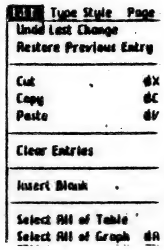
You can add text to a graph one line at at ime. When you add to a cell value, the new value isn't complete until you press the [ENTER] key or select another cell. If an entry isn't complete, it cannot be paired with another and plotted on the graph. Also, the changes cannot be saved and the document cannot be put away.

EDIT

Move Cells

To move one or more cells within the same LisaGraph table

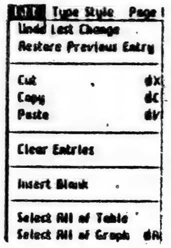
- Select the cell or cells to be moved.
- Choose Cut from the Edit menu.
- Select the location the cells are to be moved to.
- Choose Paste from the Edit menu.



You can move one or more cells, columns, or rows to another spot in the same table or into another LisaGraph table.

To move one or more cells to another LisaGraph table

- Select the cell or cells to be moved.
- Choose Cut from the Edit menu.
- Get or activate the recipient table.
- Select the location the cells are to be moved to.
- Choose Paste from the Edit menu.

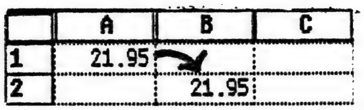


When you cut cells, they are removed from the table and put on the Clipboard. If you cut a row or column, any remaining rows or columns are reordered automatically.

When you paste, you are pasting a copy of the cells from the Clipboard; a copy remains on the Clipboard so you can paste again. Note: if you don't select a new area, the paste operation puts the cut cells back where they came from. You can immediately reverse either the cut or the paste operation by choosing Undo Last Change from the Edit menu.

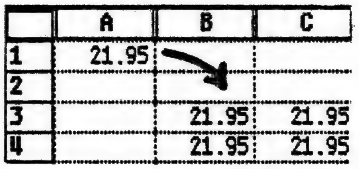
When moving cells, the following combinations are possible:

A single cell can be moved to another cell.



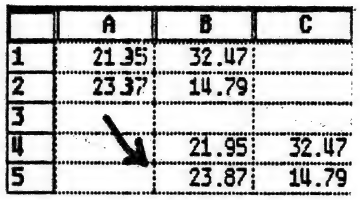
	A	B	C
1	21.95		
2		21.95	

A single cell can be moved to a range of cells. The range can be any size or shape.



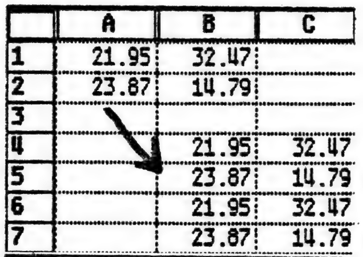
	A	B	C
1	21.95		
2			
3		21.95	21.95
4		21.95	21.95

A range of cells can be moved to another range of cells with the same size and shape.



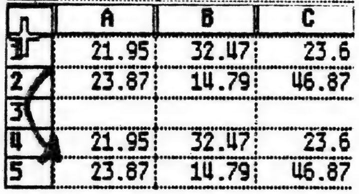
	A	B	C
1	21.95	32.47	
2	23.87	14.79	
3			
4		21.95	32.47
5		23.87	14.79

A range of cells can be moved to a larger range if the new range is an exact multiple of the size and shape of the old range.



	A	B	C
1	21.95	32.47	
2	23.87	14.79	
3			
4		21.95	32.47
5		23.87	14.79
6		21.95	32.47
7		23.87	14.79

A range of cells can be moved to a single cell. In this case, the single cell becomes the upper-left corner of a range the same size and shape as the range that was moved.



	A	B	C
1	21.95	32.47	23.6
2	23.87	14.79	46.87
3			
4	21.95	32.47	23.6
5	23.87	14.79	46.87

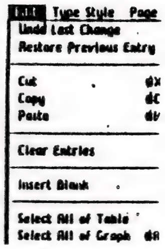
You cannot paste a column into a row or vice versa.

EDIT

Move Text

To move text to a new spot within the same graph

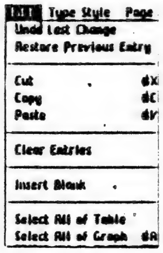
- Select the text to be moved.
- Choose Cut from the Edit menu.
- Set the insertion point or select the text to be replaced.
- Choose Paste from the Edit menu.



You can move text from one area of a graph to another or move it to another graph. However, you can not move X- or Y-axis labels which are generated automatically.

To move text to another graph

- Select the text to be moved.
- Choose Cut from the Edit menu.
- Get or activate the recipient graph.
- Set the insertion point or select the text to be replaced.
- Choose Paste from the Edit menu.



When you cut text from a graph, it is placed on the Clipboard. When you paste, you are pasting a copy of the text on the Clipboard; a copy remains on the Clipboard so you can paste it again. If you don't select a new area before pasting, the cut text is pasted in where it was.

You can immediately reverse either the cut or the paste operation by choosing Undo Last Change from the Edit menu. To move a cell's value, see the entry under "Edit, Move Cells."

EDIT

Replace Text

To replace text on a graph

➤ Select the text to be replaced.

➤ Type.

You can replace text on a graph or in a cell. However, you can not replace the X- and Y-axis labels generated automatically.

To replace text in a cell

➤ Select the cell.

➤ Select the text to be replaced.

➤ Type.

➤ Select another cell by using the mouse and pointer or by pressing [TAB] or [RETURN], or press the [ENTER] key.

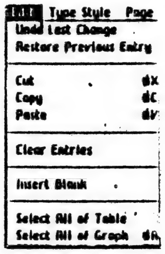
When you replace text in a cell, the resulting value isn't complete until you press the [ENTER] key or select another cell. If an entry isn't complete, it cannot be paired with another and plotted on the graph. Also, the changes cannot be saved and the document cannot be put away.

You can reverse the replacement by choosing Undo Last Change from the Edit menu.

Undo Last Change

To reverse the affect of the last change

➤ Choose Undo Last Change from the Edit menu.



Operations that you can undo include Cut, Copy, Paste, Clear Entry, changing column widths, inserting a blank row or column, formatting a cell, changing a graph form or display size, adding or removing legends or grid lines, type style changes, and changing lines to bars or vice versa.

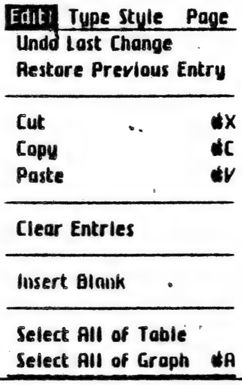
If the menu item is gray, the last change cannot be reversed. Occassionally, the menu item is available when the operation cannot be reversed. In this case a message appears telling you that LisaGraph cannot undo the last change. An example,

EDIT

Restore Previous Entry

To restore the previous entry to the cell that you are editing

➤ Choose Restore Previous Entry from the Edit menu.

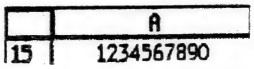


Retore Previous Entry is available only while you are editing a cell. It cancels all changes made to that cell. As soon as you select another cell or press the [ENTER] key, this item is unavailable.

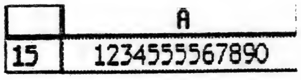
Once you have entered a value, you can choose Undo Last Change from the Edit menu to reverse the last change you made.

Example

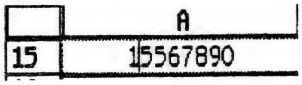
Suppose you select a cell and



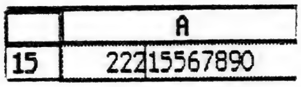
1. Insert some text.



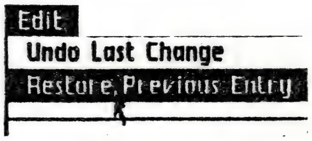
2. Cut some text.



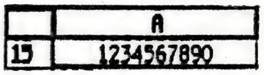
3. Add more text.



4. Choose Restore Previous Entry.



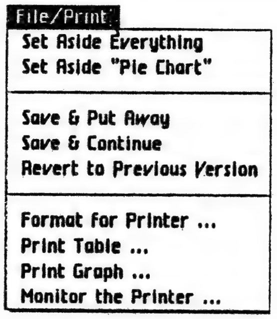
All changes to the value are reversed. The value the cell started with is restored.



Revert to Previous Version

To cancel all changes made to a document

➤ Choose Revert to Previous Version from the File/Print menu.



This operation restores the document to the condition it was in when you last saved it or put it away. This menu item is always available and operates on the active document.

FORMAT

Cell Alignment D2-26
Cell Number Style D2-27
Column Widths D2-29
Graph's Format D2-30
Grid Lines D2-32
Legends D2-33
Line on a Bar Graph D2-35
Graph's Screen Size D2-37
Graph's Type Style D2-38
Graph's X-Axis Range D2-41
Graph's Y-Axis Range D2-44
Table's Type Styles D2-48

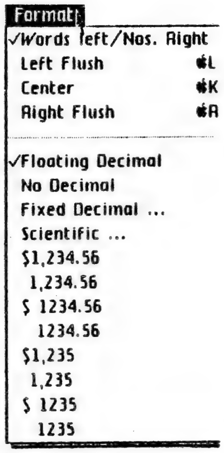
FORMAT

Cell Alignment

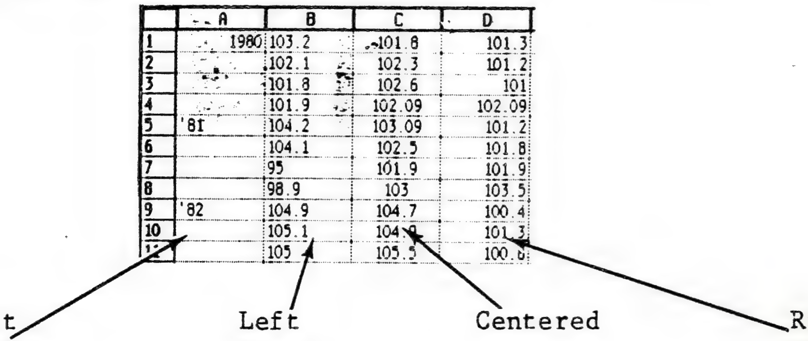
To change where within cells the values are aligned

➤ Select the cells.

➤ Choose an alignment option from the Format menu.



You may change the alignment of the value within one or more cells, columns, or rows. The examples below show columns with various cell alignments.



	A	B	C	D
1	1980	103.2	101.8	101.3
2		102.1	102.3	101.2
3		101.8	102.6	101
4		101.9	102.09	102.09
5	'81	104.2	103.09	101.2
6		104.1	102.5	101.8
7		95	101.9	101.9
8		98.9	103	103.5
9	'82	104.9	104.7	100.4
10		105.1	104.9	101.3
11		105	105.5	[illegible]

Words Left
Numbers Right

Left
Flush

Centered

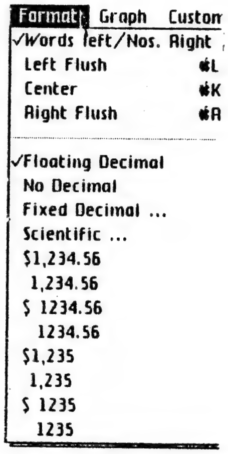
Right
Flush

FORMAT

Cell Number Style

To change the number style of one or more cells

- ➤ Select the cells.
- ➤ Choose a number style from the Format menu.



A number in a cell can be displayed in any of several styles, depending on the number style chosen and the size of the cell. For example, you can display the value 498 as either 498.0 or $498.00 or 4.98E+2, etc.

Some number styles require that LisaGraph round the number in the cell and display the rounded value; the actual value isn't changed. When rounding a number whose last digit is a 5, LisaGraph rounds the previous digit to an even digit; this ensures a correct average. For instance,

- o 1234.575 is rounded and displayed as 1234.58.
- o 1234.565 is rounded and displayed as 1234.56.

The number styles are:

Floating Decimal	Shows numbers in the best style for the size of the value and the width of the column.
Fixed Decimal	Shows numbers as values with a fixed number of decimal places. When you choose this menu item, a dialog box appears allowing you to set the number of decimal places.

No Decimal	Shows numbers rounded to the nearest whole number value.
Scientific	Shows numbers with scientific notation and a fixed number of decimal places. When you choose this menu item, a dialog box appears allowing you to set the number of decimal places.
Monetary Styles	Shows numbers in any of the monetary styles described below. Dollar sign, commas, cents Commas, cents Dollar sign, cents Cents Dollar sign, commas Commas Dollar sign Numbers only

Example

To give you an idea of how a cell's number style affects the way its value is displayed, the value 12345.6789 is shown below as it will appear in a cell that is ten characters wide.

Number style is	Value is Displayed as
Floating Decimal	12345.6789
Fixed Decimal (1)	12345.7
No Decimal	12346
Scientific (4)	1.2346E+4
$ 1234.56	$ 12345.68

FORMAT

Column Widths

To change the width of one column,

➤ Position the pointer in the grid handle on the right side of the column.

➤ Press and hold down the mouse button while moving the pointer and flickering boundary to the left or right.

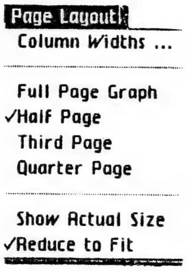
➤ Release the mouse button when the flickering outline shows the column width you want.

You may move the boundary of a column when it is too wide or not wide enough. In addition, you may use a menu item to set the width of several columns at once.

To change the width of several columns at once,

➤ Select the columns.

➤ Choose Column Width from the Page Layout menu.



➤ When the dialog box appears showing the number of characters the cells can display, type a new number.

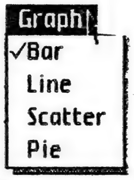
➤ Click OK.

FORMAT

Graph Format

To change a graph's format

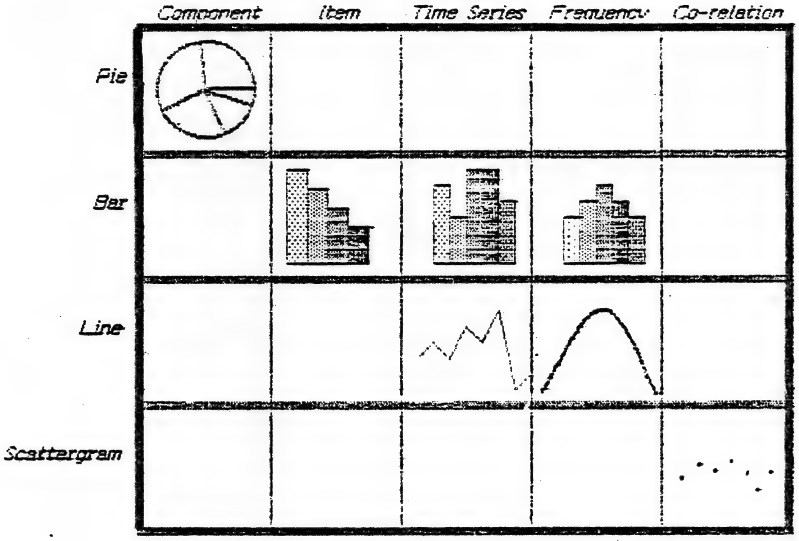
➤ Choose a format from the Graph menu.



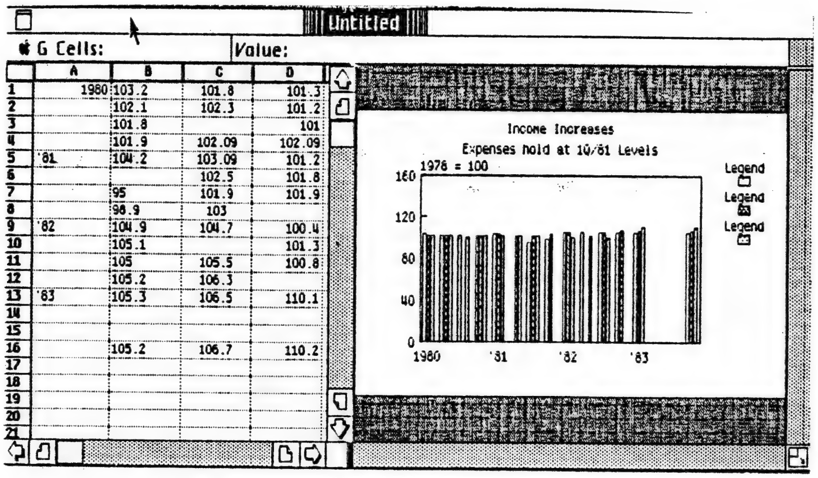
With Lisagraph you can create pie charts, bar graphs, line graphs, and scattergrams. Most sets of data are suitable for one of the following kinds of comparisons.

- Component: each value is compared with the total.
- Item: size or quantity of two or more items are compared with each other.
- Time series: size or quantity is compared over time.
- Frequency distribution: distribution of an item in each of several categories of progressive size or rank is compared.
- Co-relationship: variation in one respect is compared with variation in another to see if a meaningful pattern emerges.

Because each type of graph best suits a particular comparison, use the table below to help you decide which format to use for your comparison.



Any graph format works well if your data is complete. However, if data is sparse, as shown below, a good graph cannot be produced.



	A	B	C	D
1	1980	103.2	101.8	101.3
2		102.1	102.3	101.2
3		101.8		101
4		101.9	102.09	102.09
5	'81	104.2	103.09	101.2
6			102.5	101.8
7		95	101.9	101.9
8		98.9	103	
9	'82	104.9	104.7	100.4
10		105.1		101.3
11		105	105.5	100.8
12		105.2	106.3	
13	'83	105.3	106.5	110.1
14				
15				
16		105.2	106.7	110.2
17				
18				
19				
20				
21				

On bar graphs, line graphs, and scattergrams, LisaGrpah coordinates and pairs X-axis data from column A of the table with Y-axis data from columns B through I, and then plots the intersections of "data pairs" on the graph.

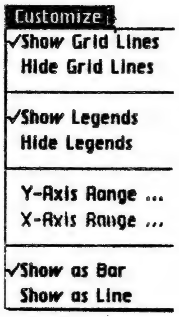
On pie charts, LisaGraph totals all values in column B and plots each value as a segement representing its percentage of the total. Pie segments are arranged in clockwise order from largest to smallest. Values in column A are coordinated to become segment labels.

FORMAT

Grid Lines

To add grid lines to a graph

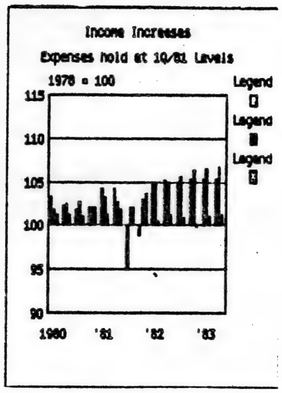
➤ Choose Show Grid Lines from the Customize menu.



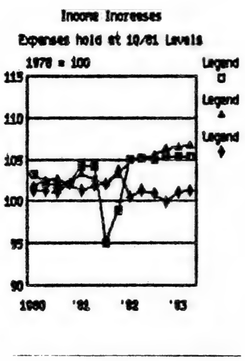
To hide grid lines

➤ Choose Hide Grid Lines from the Customize menu.

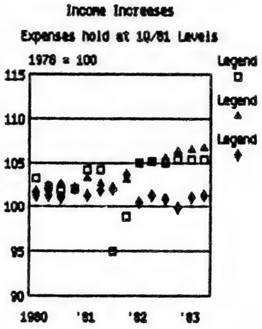
Grid lines make graphs easier to read, as shown below.



Bar Graph



Line Graph



Scattergram

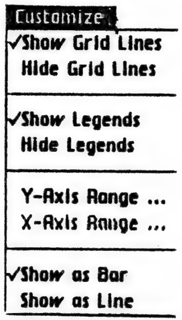
Note that on a bar graph, grid lines extend from the Y-axis labels on the left to the graph's right border; on a line graph and scattergram, grid lines extend from both the X- and Y-axis labels. Pie charts have segment divisions, therefore, grid lines are not an option.

FORMAT

Legends

To display legends on a graph

➤ Choose Show Legends from the Customize menu.



To hide legends

➤ Choose Hide Legends from the Customize menu.

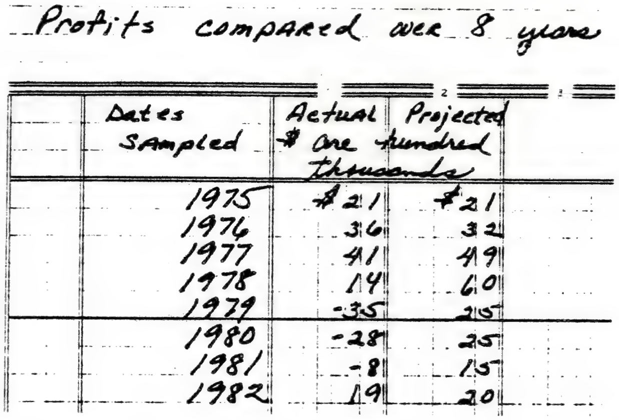
There are a total of eight pre-set patterns used on graphs. Legends are provided automatically to explain what each pattern on a graph means; you replace the text provided with a meaningful description.

You cannot select or change the patterns on a graph, however, you can "paint" over the patterns with shapes that you draw and shade in LisaDraw. Patterns on pie charts repeat when more than eight segments are shown. But this can cause a problem because you could end up with two segments in the same pattern side-by-side.

When you conceal legends, the graph gets wider. It expands to fill the space the legends occupied.

Example

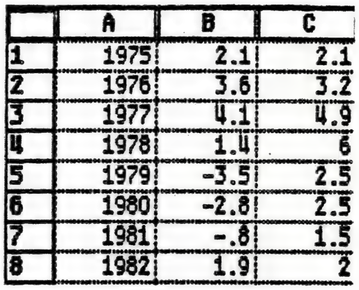
Suppose you have the table shown below and you want to plot the data on a graph and use legends to identify the data.



Profits compared over 8 years

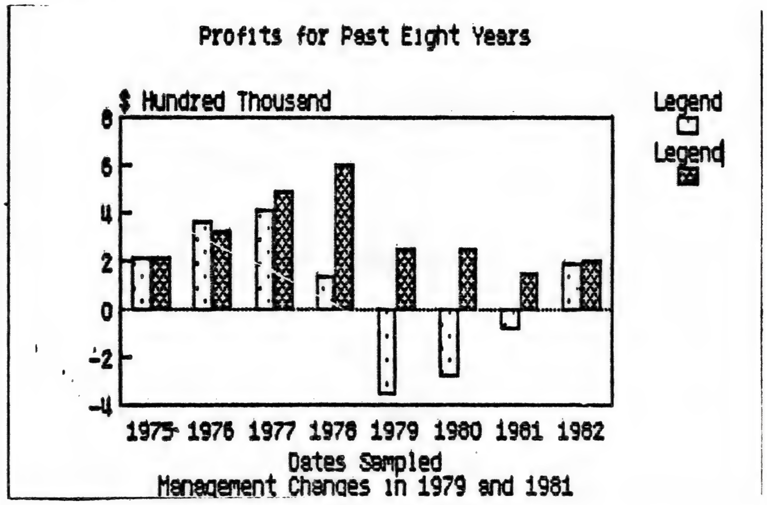
Dates Sampled	Actual $ one hundred thousands	Projected
1975	$2.1	$2.1
1976	3.6	3.2
1977	4.1	4.9
1978	1.4	6.0
1979	-3.5	2.5
1980	-2.8	2.5
1981	-.8	1.5
1982	1.9	2.0

1. You begin a new document and enter the data into the table, but not the headings.

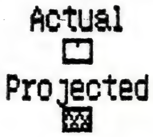


	A	B	C
1	1975	2.1	2.1
2	1976	3.6	3.2
3	1977	4.1	4.9
4	1978	1.4	6
5	1979	-3.5	2.5
6	1980	-2.8	2.5
7	1981	-.8	1.5
8	1982	1.9	2

LisaGraph automatically coordinates and pairs the X-axis values in column A with the Y-axis values in column B and draws the intersections of those points on the graph in one pattern. Then, LisaGraph coordinates the values in column A with the values in column C and draws another set of bars in a different pattern. Your graph looks like this:



2. You replace the legend text on the graph with the column headings on your original, as shown here.



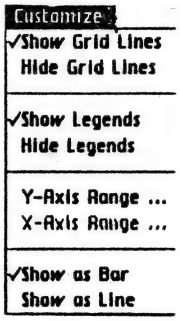
FORMAT

Line on a Bar Graph

To change a bar to a line

➤ Select the column in the table that contains the data you want plotted as a line.

➤ Choose Show as Line from the Customize menu.



To enhance a bar graph, you may change one or more sets of bars to lines. However, beware; if you change all sets of bars to lines, the bar graph will look like a line graph.

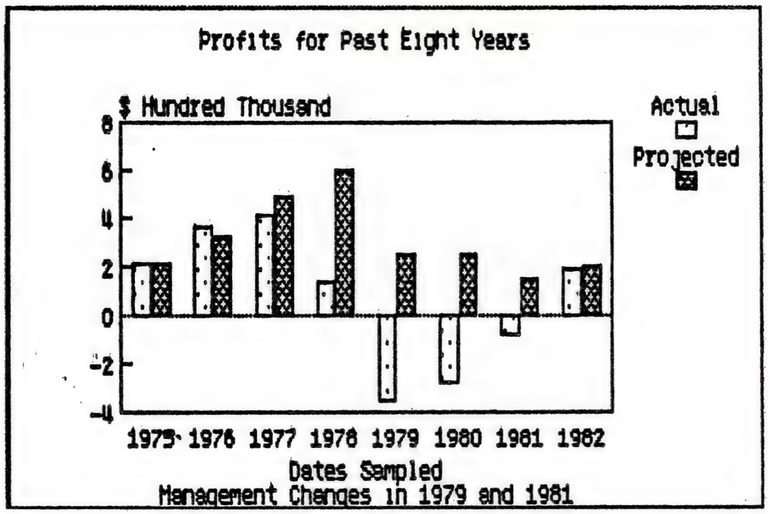
To change a line back to a bar

➤ Select the column whose data is plotted as a line.

➤ Choose Show as Bar from the Customize menu.

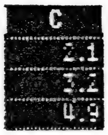
Example

Suppose your graph compares actual profits with projected profits over time: in the table, column A contains dates, column B contains actual profits, and column C contains projected profits. It looks like this:



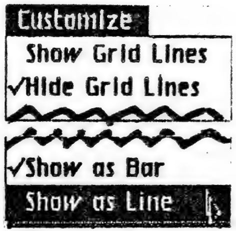
To plot projected profits as a line,

1. Select column C in the table.

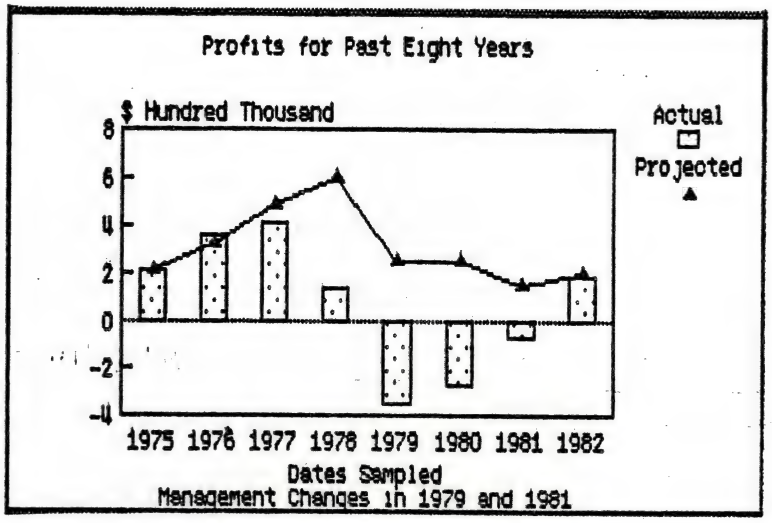


C
2.1
3.2
4.9

2. Choose Show as Line from the Customize menu.



The data in column C is automatically replotted as boxes connected with a line. The graph looks like this.

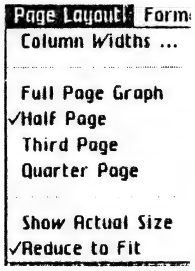


FORMAT

Graph's Screen Size

To display the graph in the same size as it will print

➤ Choose Show Actual Size from the Page Layout menu.



To reduce the graph to fit in the graph view

➤ Choose Reduce to Fit from the Page Layout menu.

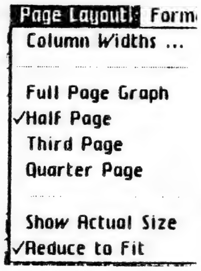
On the screen, a graph is usually reduced to fit in the graph view. However, you must display the graph in its actual size when you change type styles. Also, you can display the graph in its actual size to see how it will look when printed. When it is more convenient to view the entire graph at once, you can reduce it to fit in the graph view.

FORMAT

Graph's Type Style

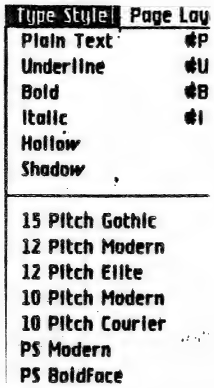
To change the style of type on a graph

➤ Choose Show Actual Size from the Page Layout menu.



➤ Select the text on the graph to be changed.

➤ Choose a style from the top section of the Type Style menu.



Type styles are found in the top section of the Type Style menu and are available only when the graph is shown in its actual size and some text on the graph is selected. Any combination of styles is possible, however, some are distracting. See Appendix 4 in this manual for a sample of all type styles available in LisaGraph.

Guidelines for Type Styles

Use type styles judiciously to add impact to your words and aide the reader. Avoid distracting combinations; keep the document legible.

o Bold is good for titles or strong emphasis. Use it whenever you would otherwise underline twice.

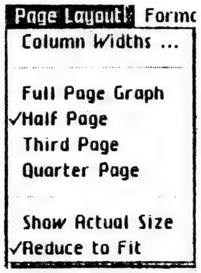
- Italic is good for quotations or to add subtle emphasis to other words. Use it instead of a single underline if you have a dot-matrix printer.

- Underlines provide emphasis to documents printed with a daisy wheel printer.

In addition to the type styles, LisaGraph provides several different type fonts. Any set of characters in a particular size and face is called a font.

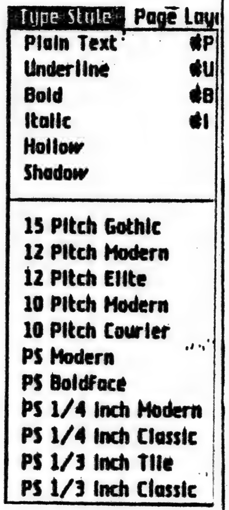
To change a type font on the graph

➤ Choose Show Actual Size from the Page Layout menu.



➤ Select the text to be changed.

➤ Choose a font from the bottom section of the Type Style menu.



Fonts for the graph are listed by size and face at the bottom of the Type Style menu. Size, or pitch, refers to the number of characters printed per inch; 15 pitch prints 15 characters per inch and so on; PS means characters are "proportionally spaced."

The 'face' is the portion of the character that displays and prints. In the type Style menu, names like Modern and Gothic refer to the type face. For instance, Modern is a sans serif face, one without serifs, or "feet", on the characters and Gothic is a serif face, one with "feet."

LisaGraph will display and print a type font in any style you choose from the top section of the Type Style menu. See Appendix 4 of this binder for a sample of all LisaGraph type styles and fonts.

Guidelines for Fonts

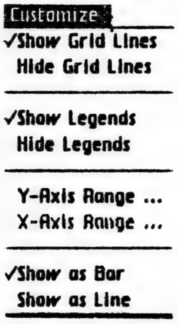
- Professional printers use various sizes of the same face to produce an aesthetically pleasing document.
- Mixed type faces are distracting.

FORMAT

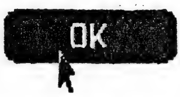
Graph's X-Axis Range

To change the range of labels along a graph's X-axis

- ➤ Choose X-axis Range from the Customize menu.



- ➤ When the dialog box appears with the current specifications, select the value you want to change.
- ➤ Type a number or the word "automatic" and press the [RETURN] key to move to and select the next value. Repeat until the dialog box shows the desired range.
- ➤ Click OK.



A graph displays numerical relationships using a two dimensional coordinate system. The horizontal scale is the graph's "X axis." The range of X-axis labels along the bottom of the graph is derived from the data in column A. Data in column A is used in the following ways:

- On pie charts, each value in column A appears beside the segment it identifies.
- On bar graphs, the values in column A are evenly spaced across the bottom of the graph in the same order as they appear in the table.
- On line graphs and scattergrams with one or more text values in column A, the values themselves are evenly spaced across the bottom of the graph in the same order as they appear in the table.
- If any cell in column A contains only a space, the X-axis label will be a blank space. If column A contains no data, there will be no X-axis labels.

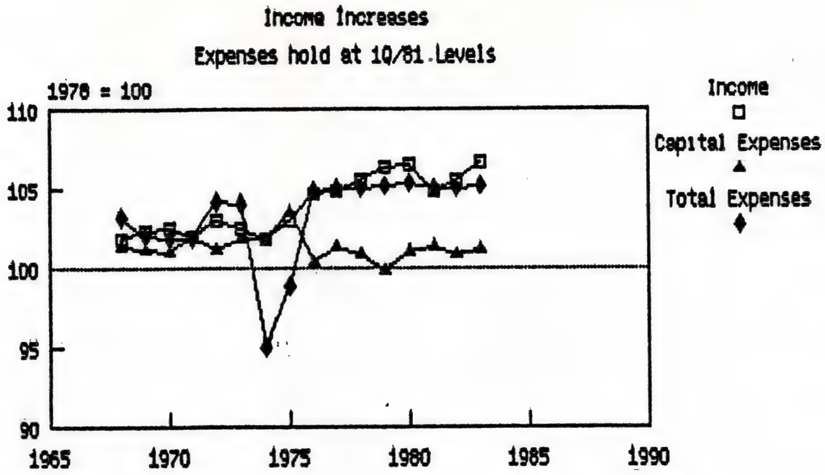
- On line graphs and scattergrams with only numbers in column A, LisaGraph automatically computes a range of labels that includes all values in column A. Values are not plotted in the same order as they appear in the table, because the numbers range from lowest to highest.

If the range of labels on a line graph or scattergram with a numeric X-axis doesn't suit your needs, you may change the range. The X-axis range has four attributes:

Minimum value	The lowest number in the range. It determines how much space appears between the graph's bottom border and the lowest value plotted.
Axis origin	The number at which the reference line appears -- from which distances or angles are measured.
Maximum value	The highest number in the range. It determines how much space appears between the graph's top border and the highest value plotted.
Increment	The number amount between labels. It determines the number of labels across the X axis.

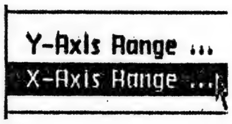
Example

Suppose you have created a line graph that compares income, expenses, and total spending from 1968 through 1983 and the automatic X-axis labels look like this:

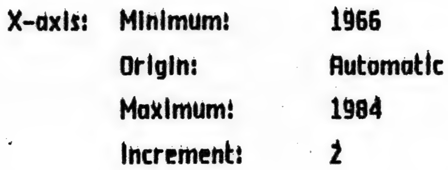


To change the range of labels, you

1. Choose X-Axis Range from the Customize Menu.



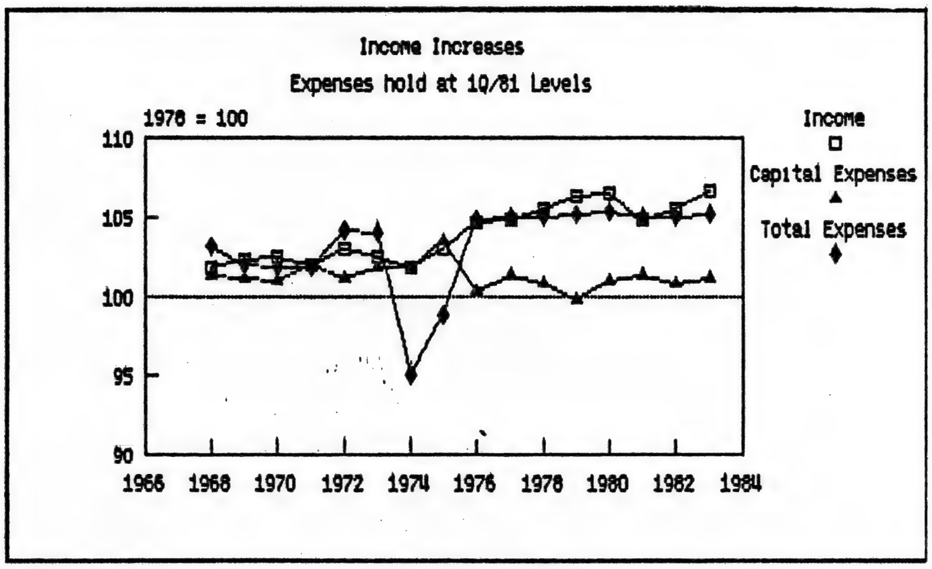
2. When the dialog box appears, you enter the range shown here.



X-axis: Minimum: 1966
Origin: Automatic
Maximum: 1984
Increment: 2

3. You move the pointer into OK and click the mouse button.

The graph now looks like this:

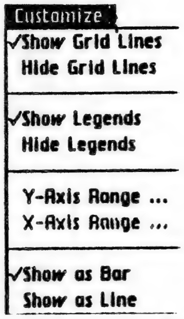


FORMAT

Graph's Y-Axis Range

To change the range of labels along the graph's Y-axis

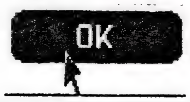
➤ Choose Y-axis Range from the Customize menu.



➤ When the dialog box appears with the current specifications, select the value you want to change.

➤ Type a number or the word "automatic" and press the [RETURN] key to move to and select the next value. Repeat until the dialog box shows the desired range.

➤ Click OK.



A graph displays numerical relationships using a two dimensional coordinate system. The vertical scale is the graph's "Y axis." Y-axis data must be numeric to be plotted.

The range of Y-axis labels along the graph's left border is derived from the data in columns B through I in the table. Data in the table is used in the following on bar graphs, line graphs, and scattergrams:

- The Y-axis values in column B are coordinated and "paired" with the X-axis values in column A and the intersections of these "data pairs" are plotted in one pattern.
- The Y-axis values in column C are coordinated and paired with the X-axis values in column A and these intersections are plotted in another pattern, and so on until as many as eight sets of data have been plotted in eight different patterns.

- As data is plotted on the graph, LisaGraph computes a range of Y-axis labels that includes the lowest and highest values plotted. The range is divided into four or five labels that are spaced evenly along the graph's Y-axis.

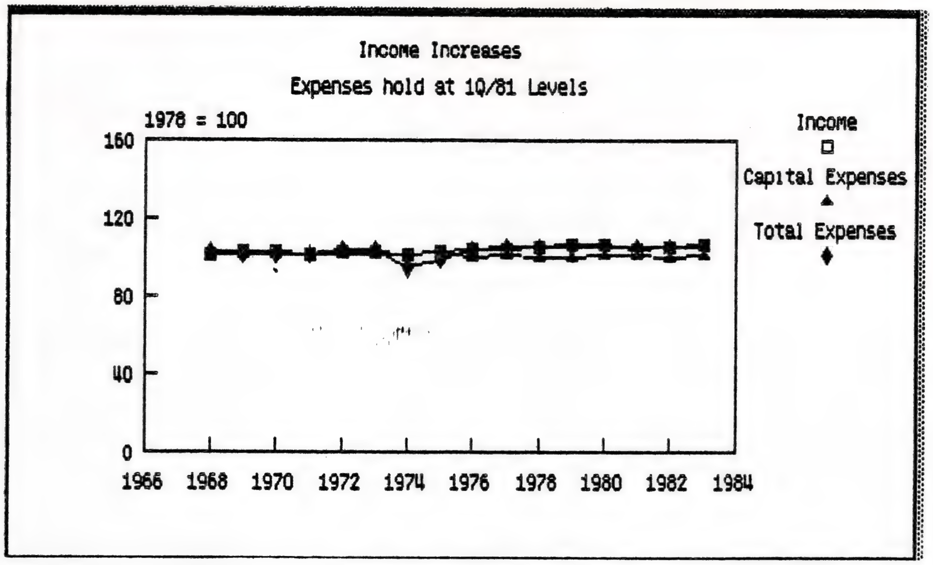
When the range of Y-axis labels is not sufficient for your needs, you may change it. The Y-axis range has four attributes:

Minimum value	The lowest number in the range. It determines how much space appears between the graph's left border and the lowest value plotted.
Axis origin	The number at which the reference line appears -- from which distances or angles are measured.
Maximum value	The highest number in the range. It determines how much space appears between the graph's right border and the highest value plotted.
Increment	The number amount between labels. It determines the number of labels along the Y axis.

Pie charts have no Y-axis. When making pie charts, LisaGraph totals the Y-axis values in column B only and divides each value into a percentage of the whole. The resulting percentages are plotted as pie segments. Values in column A are coordinated with values in column B to become segment labels.

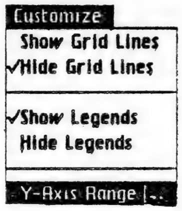
Example

Suppose the values in columns B through D of your table range from 95 to 106 and that the Y-axis labels range from zero to 160. This range produces a very flat graph, as shown below.



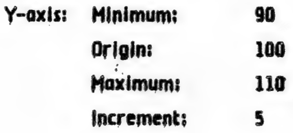
To put five labels on the Y-axis, that range between 90 and 110, you

1. Choose Y-axis Range from the Customize menu.



2. Select the minimum value when the dialog box appears and type

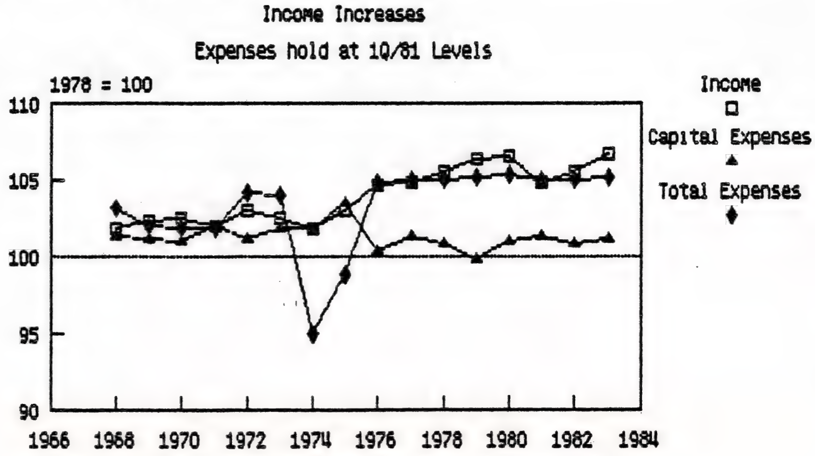
   90 [RETURN]
   [RETURN]
   110 [RETURN]
   5 [RETURN]



Y-axis: Minimum: 90
Origin: 100
Maximum: 110
Increment: 5

3. Click OK.

The new Y-axis labels are computed and displayed. Your graph looks like this:



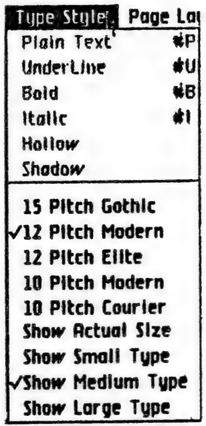
FORMAT

Table's Type Styles

To change the table's printing type font

➤ Select the cells, rows, or columns of data.

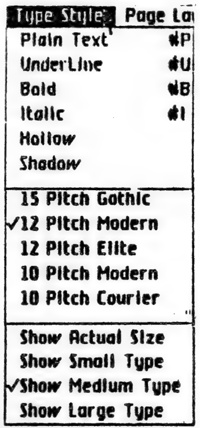
➤ Choose a font from the bottom of the Type Style menu.



LisaGraph provides several different printing type fonts for the table; any set of characters in a particular size and face is called a font. In addition, LisaGraph provides several sizes of type for the table on the screen.

To change the type size of the table on the screen

➤ Choose a display type size from the bottom of the Type Style menu.



The table may be displayed on the screen in small, medium, or large type, regardless of the size in which it will print. For instance, choose Show Small Size, 15 characters per inch, to check the table's appearance or Show Large Size, 10 characters per inch, to read and edit values easily. Show Actual Size shows the size of type in which the table will print.

Fonts for the table are listed by size and face in the middle of the Type Style menu. Size, or pitch, refers to the number of characters printed per inch; 15 pitch prints 15 characters per inch and so on; PS means characters are "proportionally spaced."

The 'face' is the portion of the character that displays and prints. In the type Style menu, names like Modern and Gothic refer to the type face. For instance, Modern is a sans serif face, one without serifs, or "feet", on the characters and Gothic is a serif face, one with "feet."

Fonts in the table display and print only in Plain style; styles like bold, italic, underlines, etc. can not be used in the table. See Appendix 4 of this binder for a sample of all LisaGraph fonts.

PRINT

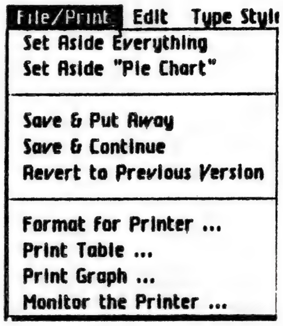
Format for Specific Printers D2-52
Print a Table D2-57
Change a Graph's Printing Size D2-61
Print a Graph D2-62

PRINT

Format for Specific Printers

To format your document for a specific printer

- Choose Format for Printer from the File/Print menu.



- Check the type of printer that this document will print on.
- If you are using a dot matrix printer, check the orientation and resolution that you want to use for this document.
- If you are using a daisy wheel printer, check the paper size and printwheel style that you want to use for this document.
- Check the response you want Lisa to make if no printer matches the settings you've picked.
- Check OK.

The settings you check in the Format for Printer dialog box work with the formats you set in your document as you enter data and edit the document. These printer settings are saved with each document, and become part of the settings that determine how your document displays on the screen, as well as how it prints out.

PRINT

Format for Specific Printers (continued)

It's a good idea to choose the Format for Printer settings for a document before you format your document, because some Format for Printer settings limit the other formatting settings available to you. These are discussed under the individual settings, below.

Printer format settings take affect in the text of your document after you check "OK" in the dialog box.

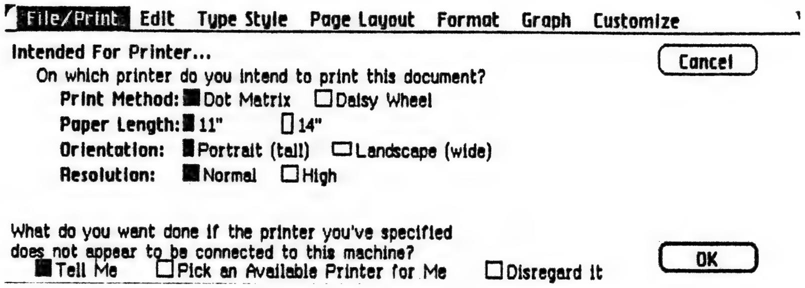
Settings in the Format for Printer Dialog Box

The Format for Printer dialog box lets you check the kind of printer you want this document to print on, and then some details on size of paper and type style.

You can tell Lisa to print your document on a dot matrix or daisy wheel printer. The items that follow "Print Method" in the dialog box change when you change your printer preference from dot matrix to daisy wheel, or back.

Dot Matrix Printer Settings

When you choose Dot Matrix printer in the Format for Printer dialog box, you see these additional choices:



Intended For Printer...
On which printer do you intend to print this document?
Print Method: ☒ Dot Matrix ☐ Daisy Wheel
Paper Length: ☒ 11" ☐ 14"
Orientation: ☒ Portrait (tall) ☐ Landscape (wide)
Resolution: ☒ Normal ☐ High

What do you want done if the printer you've specified does not appear to be connected to this machine?
☒ Tell Me ☐ Pick an Available Printer for Me ☐ Disregard it

Paper Length. With a dot matrix printer, you can print on 11" or 14" paper.

PRINT

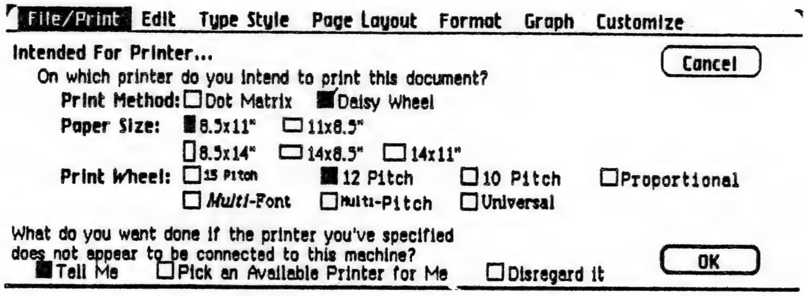
Setup for Specific Printers (continued)

Orientation. This setting tells Lisa whether to print your document horizontally or vertically on the paper in your printer. When the orientation is Portrait, Lisa prints the text of your document across the 8-1/2 inch width of your paper, from left to right. When the orientation is Landscape, Lisa treats the length of the paper (11 or 14 inches) as the width. In other words, it treats the paper as though it could turn it on its side before printing.

Resolution. This tells Lisa what quality you want the document to print with. Normal resolution gives you a standard character image, and prints fairly quickly. High resolution produces a much finer quality character image, but takes approximately 4 times as long to print.

Daisy Wheel Printer Settings

When you choose Daisy Wheel printer in the Format for Printer dialog box, you see these additional choices:



Intended For Printer...

On which printer do you intend to print this document?

Print Method: ☐ Dot Matrix ■ Daisy Wheel

Paper Size: ■ 8.5x11" ☐ 11x8.5"
☐ 8.5x14" ☐ 14x8.5" ☐ 14x11"

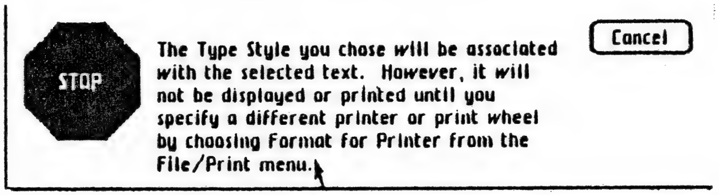
Print Wheel: ☐ 15 Pitch ■ 12 Pitch ☐ 10 Pitch ☐ Proportional
☐ *Multi*-Font ☐ Multi-Pitch ☐ Universal

What do you went done if the printer you've specified does not appear to be connected to this machine?
■ Tell Me ☐ Pick an Available Printer for Me ☐ Disregard it

Paper Size. When you print to a daisy wheel printer, you have five choices for paper size: 8-1/2" x 11"; 11" x 8-1/2"; 8-1/2" x 14"; 14" x 8-1/2"; and 14" x 11". The size you choose here is reflected on the graph when you show it in its actual size.

Setup for Specific Printers (continued)

Print Wheel. You have a range of choices in print wheels. The wheel you decide to use does limit the range of type styles and fonts that you may use in your document. For instance, if the print wheel you choose does not contain italic characters, italics will not display in the text of your document. Similarly, if you check "15 pitch" as your print wheel, text will not display in 10 pitch on your screen, even if you've chosen it on the Type Style menu. When you try to use a type style or font which is incompatible with the current printer settings, you'll see this alert box:



The Type Style you chose will be associated with the selected text. However, it will not be displayed or printed until you specify a different printer or print wheel by choosing Format for Printer from the File/Print menu.

When Settings Don't Match a Printer

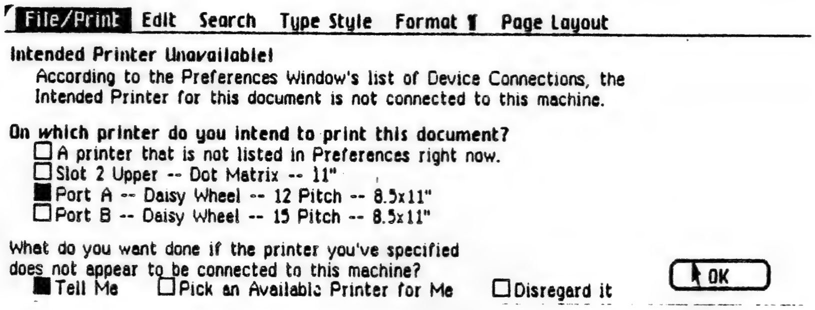
In order for Lisa to follow your instructions in this Format for Printer dialog box, two other factors must be true: Preferences must show that the type of printer with the settings you choose here is attached to Lisa, and such a printer must be attached.

Whenever you check "OK" in the Format for Printer dialog box, Lisa checks the new settings against the printer settings listed in Preferences. If they don't match, Lisa then looks at the bottom line of the dialog box to see what you want done.

PRINT

Setup for Specific Printers
(continued)

Tell me. When "tell me" is checked, Lisa notifies you that no printer specified in Preferences meets the settings you have checked. An alert box appears, so that you can decide what you want to do next. Here is what it looks like:



Intended Printer Unavailable!
According to the Preferences Window's list of Device Connections, the Intended Printer for this document is not connected to this machine.

On which printer do you intend to print this document?
☐ A printer that is not listed in Preferences right now.
☐ Slot 2 Upper -- Dot Matrix -- 11"
■ Port A -- Daisy Wheel -- 12 Pitch -- 8.5x11"
☐ Port B -- Daisy Wheel -- 15 Pitch -- 8.5x11"

What do you want done if the printer you've specified does not appear to be connected to this machine?
■ Tell Me ☐ Pick an Available Printer for Me ☐ Disregard it

Pick an Available Printer. When "pick an available printer" is checked, Lisa will choose an alternative printer if one doesn't match the settings you requested exactly. For instance, if you've specified a daisy wheel printer but only a dot matrix is attached and checked in Preferences, Lisa formats your document for the dot matrix printer, rather than for a daisy wheel printer.

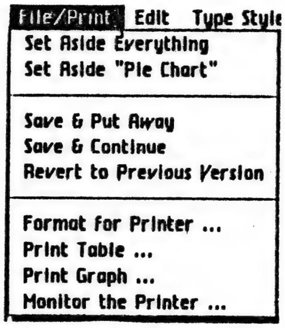
Disregard it. When "disregard it" is checked, Lisa notes that the difference in printer settings and available printers, but doesn't do anything. This allows you to continue working with your document without being interrupted to make a decision about print formats now.

PRINT

Print a Table

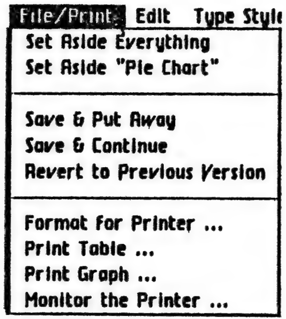
To print a table

- Set up your printer and connect it to Lisa. For assistance, see the manual that came with your printer.
- If you have not previously specified the printer(s) you use in Preferences, do so now. For assistance, refer to Section E, Desktop Manager Reference Guide, under Set Printer Configuration.
- Get or activate the document.
- Choose Format for Printer from the File/Print menu.



- Make any necessary changes in the Format for Printer dialog box that appears.
- Check OK.

- Choose Print Table from the File/Print menu.



- Make any necessary changes in the Print dialog box that appears.
- Check OK.

PRINT

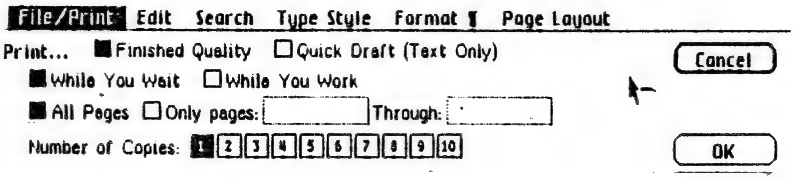
Print a Table (continued)

Using the current printer settings and the formats you specified for the table, it begins printing.

For how to make changes in the Format for Printer dialog box, see the Setup for Specific Printers procedure in this chapter.

If the printer settings and printer don't match, an alert box appears. Alert boxes resulting from a mismatch are discussed in the Setup for Specific Printer procedure in this chapter.

Print Dialog Box Settings



Print... ■ Finished Quality ☐ Quick Draft (Text Only)

■ While You Wait ☐ While You Work

■ All Pages ☐ Only pages: Through:

Number of Copies: ■1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9 ☐10

The Print dialog box lets you specify some final details about how your table will print. The choices in the Print dialog box are discussed below.

Quality

Finished Quality. Finished Quality prints your table as you have formatted it on the screen, including special type styles and fonts.

Quick Draft. Quick Draft lets you get a printed copy of the text faster, but without any special type styles and fonts used in your table. On a dot matrix printer, the built-in font is used for quick draft. On a daisy wheel printer, whatever printwheel is on the printer will be used, even if you've specified a different one in your table.

PRINT

Print a Table (continued)

Speed

While You Wait. You can have Lisa use most of its attention to print your table "while you wait." A document will print more quickly if you choose "While You Wait," but you won't be able to use Lisa for any other tasks.

While You Work. You can have the table print and continue to use Lisa for other tasks at the same time. Some printing conditions make printing while you work inconvenient, however. For example, if you are single sheet feeding individual pieces of paper into your printer, and printing a quick draft, you won't have time to do other activities on Lisa between inserting new pieces of paper.

Number of Pages

All Pages. You can print all pages of the table that contain data. Just make sure "All Pages" is checked in the Print dialog box. LisaGraph table's are automatically divided into pages for printing. Page divisions appear as dotted lines along column and row boundaries. When the data in a table is more than one page long and one page wide, the pages are printed in this order:

Page 1	Page 2
Page 3	Page 4

Selective Pages. To print selective pages of a table, check "Only Pages" and then fill in the boxes with the starting and ending pages to print.

When you want to print from the beginning of a table through some page number, say 8, you only have to enter "8" in the second box after "Through." Similarly, if you want to start at a given page number and print to the end, you need only enter the starting page number in the box after "Only pages."

Number of Copies

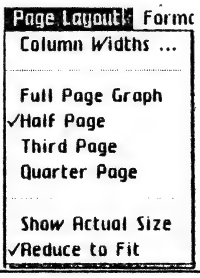
You can print from 1 to 10 copies of any document. Just check the box with the number of copies you want printed.

PRINT

Change a Graph's Printing Size

To change the size in which the graph will print

➤ Choose a size option from the Page Layout menu.



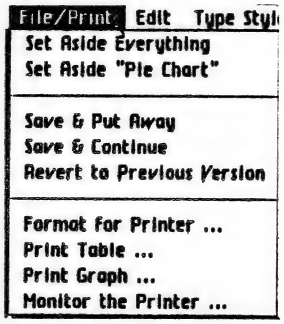
You may print a graph in one of four sizes: full page, half page, third page or quarter page. The graph fills the portion of the page that is dictated by its size, and the paper size and the orientation specified when you format the document for a specific printer. See, Format for Specific Printers.

PRINT

Print a Graph

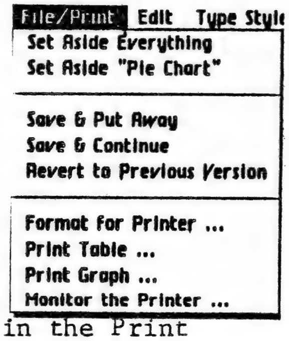
To print a graph

- ➤ Set up your printer and connect it to Lisa. For assistance, see the manual that came with your printer.
- ➤ If you have not previously specified the printer(s) you use in Preferences, do so now. For assistance, refer to Section E, Desktop Manager Reference Guide, under Set Printer Configuration.
- ➤ Get or activate the document.
- ➤ Choose Format for Printer from the File/Print menu.



- ➤ Make any necessary changes in the Format for Printer dialog box that appears.
- ➤ Check OK.

- ➤ Choose Print Graph from the File/Print menu.



- ➤ Make any necessary changes in the Print dialog box that appears.
- ➤ Check OK.

PRINT

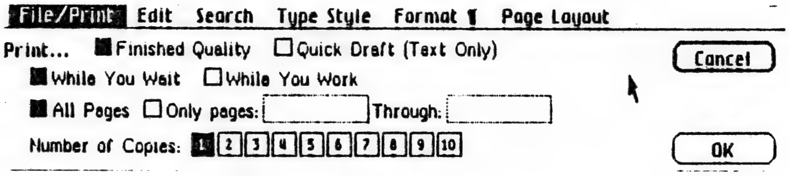
Print a Graph (continued)

Using the current printer settings and the formats you specified for the table, it begins printing.

For how to make changes in the Format for Printer dialog box, see the Setup for Specific Printers procedure in this chapter.

If the printer settings and printer don't match, an alert box appears. Alert boxes resulting from a mismatch are discussed in the Setup for Specific Printer procedure in this chapter.

Print Dialog Box Settings



Print... ■ Finished Quality ☐ Quick Draft (Text Only)
■ While You Wait ☐ While You Work
■ All Pages ☐ Only pages: Through:
Number of Copies: ■1 ☐2 ☐3 ☐4 ☐5 ☐6 ☐7 ☐8 ☐9 ☐10

The Print dialog box lets you specify some final details about how your table will print. The choices in the Print dialog box are discussed below.

Quality

__Finished Quality.__ Finished Quality prints your graph as you have formatted it on the screen, including special type styles and fonts.

__Quick Draft.__ Quick Draft lets you get a printed copy of the text faster, but without any special type styles and fonts used in your graph. On a dot matrix printer, the built-in font is used for quick draft. On a daisy wheel printer, whatever printwheel is on the printer will be used, even if you've specified a different one in your graph.

PRINT

Print a Graph (continued)

Speed

While You Wait. You can have Lisa use most of its attention to print your graph "while you wait." A graph will print more quickly if you choose "While You Wait," but you won't be able to use Lisa for any other tasks.

While You Work. You can have the graph print and continue to use Lisa for other tasks at the same time. Some printing conditions make printing while you work inconvenient, however. For example, if you are single sheet feeding individual pieces of paper into your printer, and printing a quick draft, you won't have time to do other activities on Lisa between inserting new pieces of paper.

Number of Pages

All Pages. A graph is always printed on a single page. If "All Pages" is checked in the Print dialog box, the graph will print without a problem.

Selective Pages. A graph is always a single page. To print it, check either "All Pages" or "Only Pages" and "1."

Number of Copies

You can print from 1 to 10 copies of a graph. Just check the box with the number of copies you want printed.

OTHER TOOLS

LisaGraph and LisaCalc D2-66
LisaGraph and LisaDraw D2-67

OTHER TOOLS

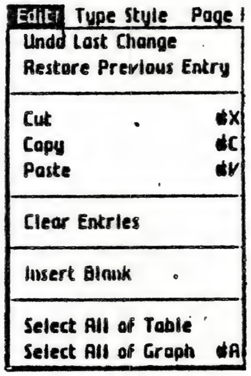
LisaGraph and LisaCalc

To copy data from a LisaCalc spread sheet and paste it into a LisaGraph table,

➤ Get or activate the LisaCalc document.

➤ Select the data to be copied.

➤ Choose Copy from the Edit menu.



➤ Put the spread sheet away.

➤ Create, get, or activate the LisaGraph document.

➤ Select the boundary between the edge of the table and row 1.

➤ Choose Paste from the Edit menu.

➤ Edit and format the graph and table, then save, print and file the LisaGraph document as usual.

You may copy data from a LisaCalc spread sheet and paste it into a LisaGraph table to be plotted graphicly. If you would like to try this, follow the step-by-step example in Section C, the LisaGraph Tutorial, Chapter 4.

OTHER TOOLS

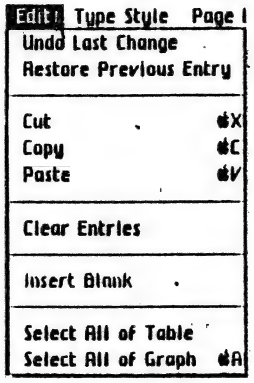
LisaGraph and LisaDraw

To add drawings to a graph,

➤ Get or activate the graph.

➤ Choose Select all of Graph from the Edit menu.

➤ Choose Copy from the Edit menu.



➤ Create a new LisaDraw document.

➤ Choose Paste from the Edit menu.

➤ Add lines, arrows, or other drawings to your graph.

➤ Print, put away, and file the document as usual.

The sample graph below shows how lines, arrows, and other drawings enhance a graph. If you would like to try this, see the section on Other Tools in the LisaDraw binder: Section C, LisaDraw Tutorial, Chapter 5.

E

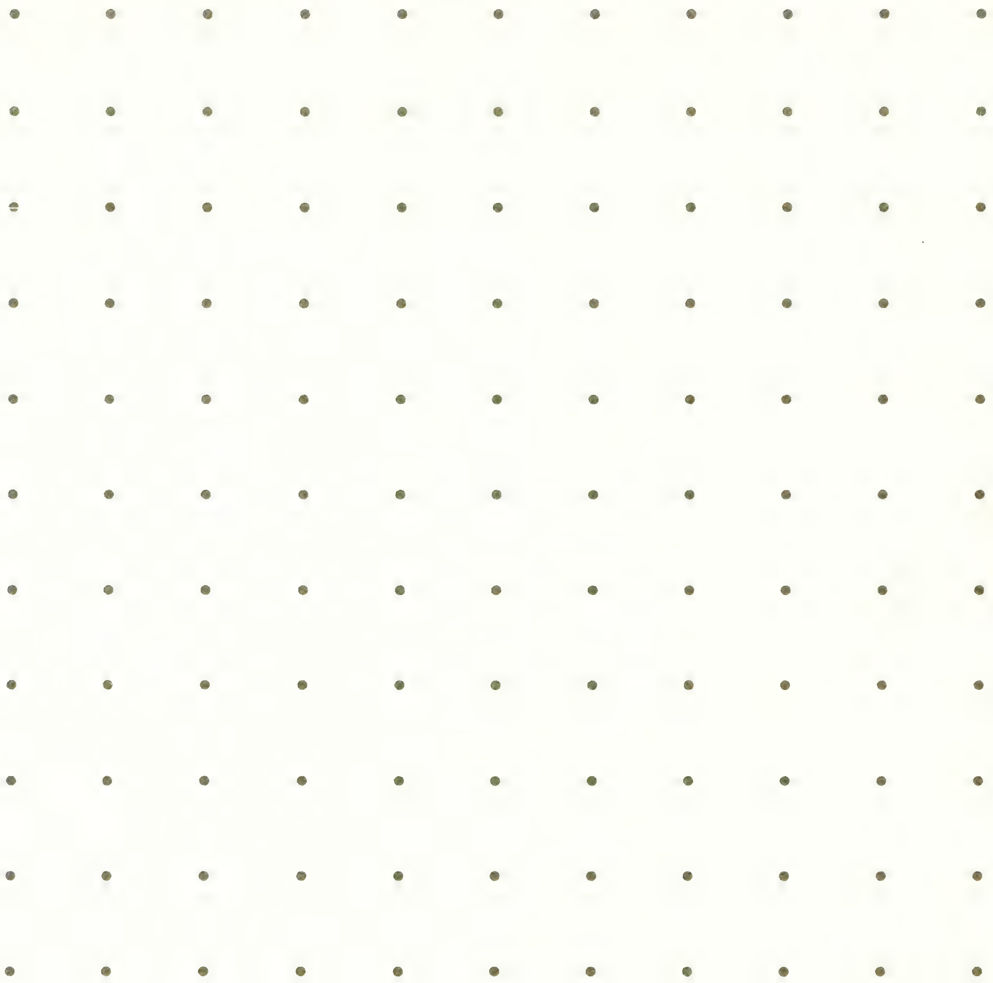
Desktop Manager
Reference Guide

SECTION E, Desktop Manager Reference Guide, has been moved to a separate binder.

In final Lisa manuals, Section B and Section E will be placed in the Lisa Owner's Guide.

F

Appendix



SECTION F. APPENDIX

Appendix 1. LisaGraph Error Messages <<to come>>

Appendix 2. LisaGraph Menu Items

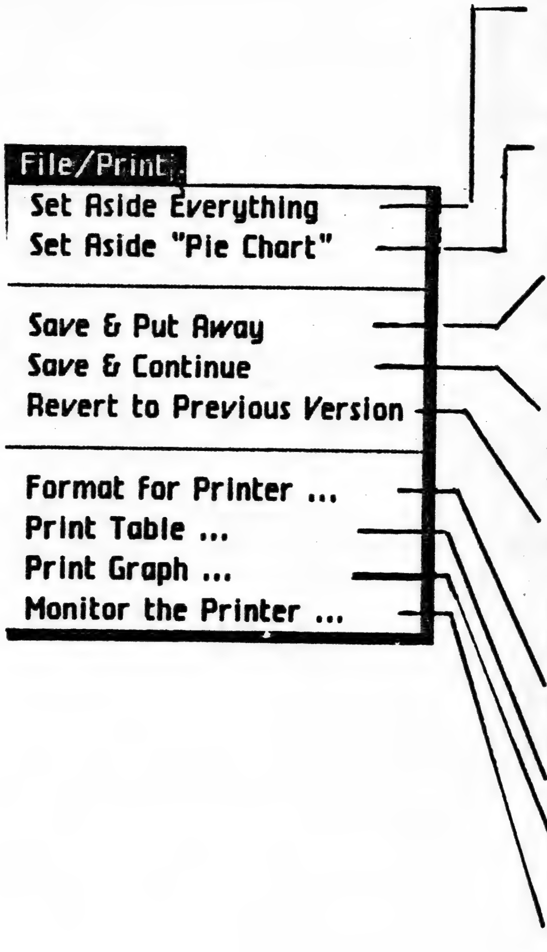
Appendix 3. LisaGraph Apple Keys

Appendix 4. LisaGraph Type Fonts

Appendix 5. Calculator <<to come>>

APPENDIX 2. LISAGRAPH MENU ITEMS

File/Print Menu



Returns all windows to their icons without saving the contents.

Returns the active document to its icon without saving the contents.

Saves the contents of the document, closes the window, and returns the icon to its original location.

Saves the contents of the document and leaves the window open.

Returns the document to the condition it was in the last time you saved it or put it away.

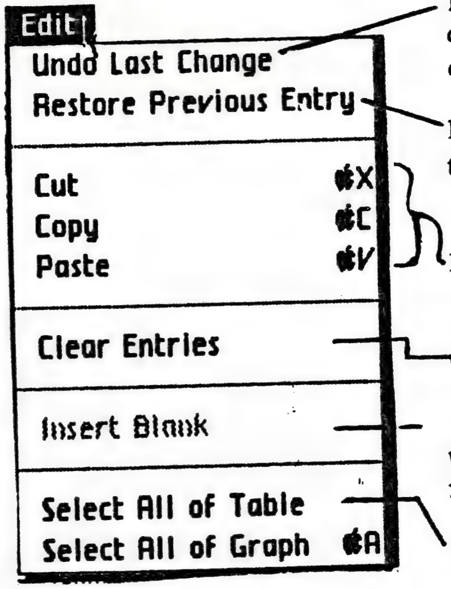
Formats the document based on the printer that will be used.

Prints the table.

Prints the graph.

Shows the status of the document(s) printing.

Edit Menu



Restores the document to its condition before the last operation.

Restores the last entered value to a cell.

Basic editing functions.

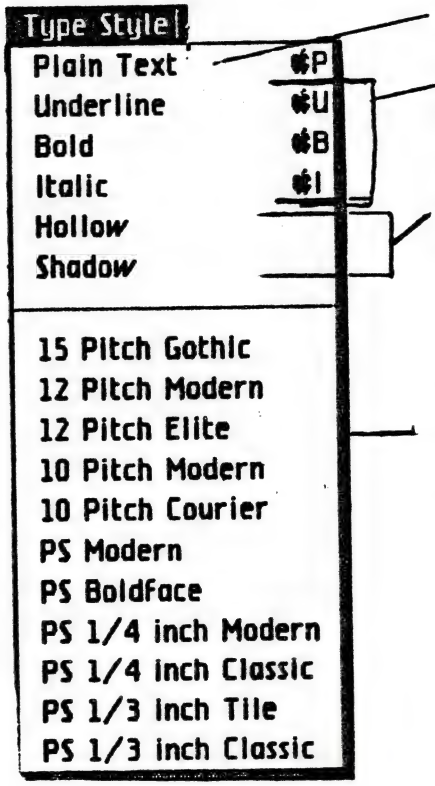
Clears the contents of cells.

Inserts a blank column or row when the grid between columns or rows is selected.

Selects entire table.

Selects entire graph.

Graph's Type Style Menu



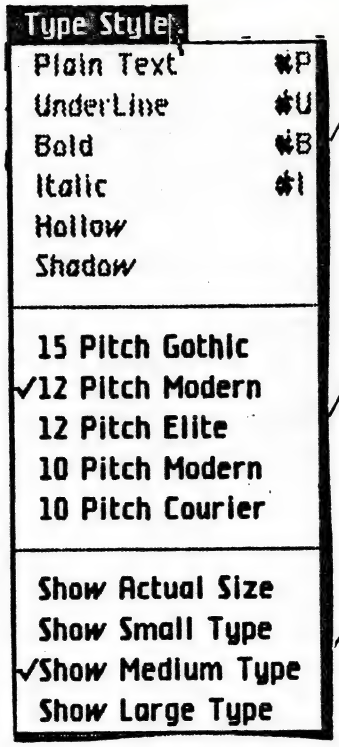
Standard type style and size.

Customizes text with underlining, bolding, italics.

Customizes text by making the characters appear hollowed or shadowed.

Type fonts available for a graph. See Appendix 4 for examples.

Table's Type Style Menu

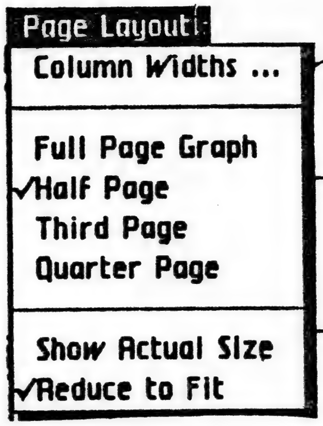


Note that type styles are not available with the table.

Type fonts available for a table.

Display sizes for the table on the screen.

Page Layout Menu

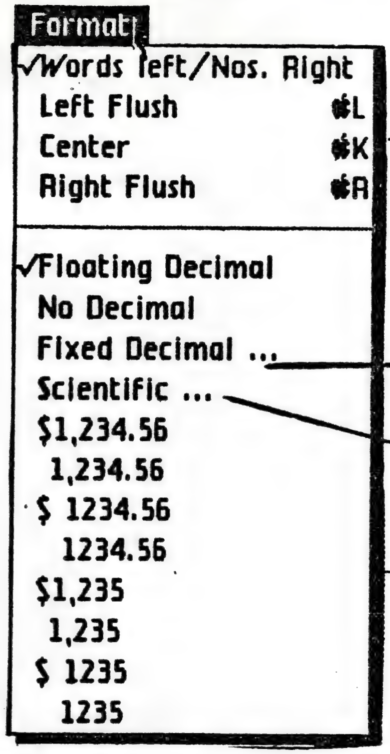


Adjusts the width of columns in the table.

Sizes for the printed graph.

Sizes for the graph on the screen.

Format Menu



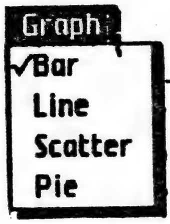
Aligns the value in a cell so that words appear on the left and numbers on the right, or so that the value appears on the cell's left boundary or centered within the cell boundaries or on the cells right boundary.

Styles the number in a cell so it fits, or styles the number without a decimal or with a fixed number of decimal places.

Styles the number in a cell with a scientific notation.

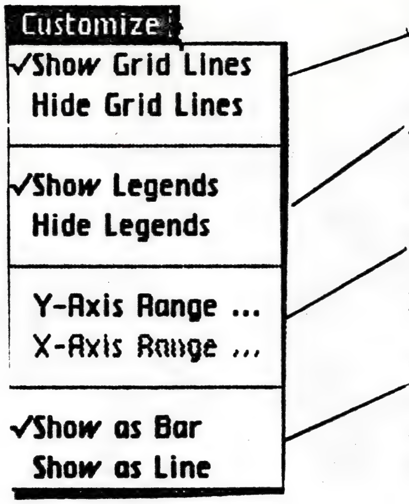
Styles the number in a cell with the monetary symbols shown.

Graph Menu



Plots data pairs from columns A:B through A:I of the table as either a bar graph, line graph, scattergram, or pie chart.

Customize Menu



Draws grid lines on a graph, or hides grid lines.

Adds legends to a graph, or hides legends.

Brings up a dialog box where you can specify a new range for the labels along a graph's Y-axis or X-axis scale.

Plots data in the selected column in the table as a bar or a line when the graph is a bar graph.

APPENDIX 3. LISAGRAPH APPLE KEYS

Some LisaGraph menu items contain the Apple key symbol [ ] followed by a character.

Menu items that appear with the Apple key symbol can be chosen by using the mouse or by pressing the Apple key and the character associated with that menu item. For example, to use the Cut menu item, you first select what you want to delete, press the Apple key, and while holding it down, press the [X] key.

The following list shows the characters that can be used in combination with the Apple key in LisaGraph:

A	Select All of Document
B	Bold
C	Copy
I	Italics
K	Center
L	Left Flush
P	Plain Text
R	Right Flush
U	Underline
V	Paste
X	Cut
.	Abort

APPENDIX 4. LISAGRAPH TYPE STYLES

Type of one size and face is called a font. The 'face' is the portion of the character that displays and prints. On the Type Style menu, some font names are preceded by a number that indicates character size. This number indicates how many chgaracters will print per inch when you use that type font. "PS" in front of a font name stands for 'proportionally spaced.'

The list below shows the fonts as they print. The type style of each font is "plain." On a graph, each of these fonts may also be styled in bold, italics, hollow, shadow, or underlined.

You can print any combination of type fonts and styles on a dot matrix printer. In order to use them with a daisy wheel printer, however, you must have the appropriate print wheel. If you choose a font which your printer is not set up to use, an alert message is displayed on the screen.

15 Pitch Gothic
12 Pitch Modern
12 Pitch Elite
10 Pitch Modern
10 Pitch Courier
PS Modern
PS Boldface
1/4 inch Modern
1/4 inch Classic
1/3 inch Modern
1/3 inch Classic

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Glossary

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